M. S.

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PART I.—ESSAYS, MONOGRAPHS, AND CASES.

Restoration of the entire Upper Lip. By J. M. Carnochan, M. D., Professor of Surgery in the New-York Medical College, Chief Surgeon to the State Emigrants' Hospital, Ophthalmic Surgeon to the same Institution, &c. [with plates].

The resources of operative surgery are more commonly demanded to remedy the ravages of disease upon the lower lip, than upon the upper. There are but few recorded instances of restoration of the entire upper lip, after destruction of its tissues, and the rules, so far, in regard to the best mode of operating in such cases, are indefinite for want of established results. Ledran, in a case of cancer of the whole of the upper lip, had no other resource, to mask the deformity after the operation, than to make the lower lip ascend to the base of the nose. I am not aware of any recorded case of restoration of the entire upper lip in this country. Lisfranc and the younger Bérard have related, each a successful case; and I record below another case, in which the attempt at making an entire upper lip was followed by complete success.

In each of these instances, the Celsian method was adopted; that is, after removal of the disease by angular incisions, lateral quadrilateral flaps are detached by dissection, and then brought together on the median line. The cheeks thus contribute to the formation of the new lip, the free edge of which is constituted by the bleeding edge of the lower horizontal incisions; while the upper horizontal incisions are united to the base of the nose.

The upper lip is usually the site of congenital deficiency of the face; but at times, its substance is destroyed by phagedenic ulcerations, or traumatic lesions.

The ulcerations of the lower lip are more apt to be of a purely cancerous character, malignant in their progress, accompanied by fetid discharges, leading to indurated swelling over and under the jaw, contaminating the contiguous tissues, as well as the neighboring glands, producing tedious hectic, and ultimately death.

The destructive lesions met with on the upper lip, are generally the result of chronic, phagedenic ulceration, which often begins in the form of lupus; but they may also result from accidental traumatic lesion. The constitution may be at fault, the strumous diathesis may be present, or some other latent cachexia may pervade the general economy. Assuming the characteristics of chronic, phagedenic ulceration, with jagged, irregular edges, and often with but little discharge, there is no disposition to contamination of the neighboring glands; but there is no limit to their destructive tendency, gnawing, as it were, the structures, soft and hard, in their slow but unrelenting progress, and causing the face to present, at last, the most hideous and appalling deformity.

Case.—In April last, I was consulted by a lady, Mrs. O. H., aged 39, the wife of a planter in North Carolina. Her parents had been persons of good constitution, and her brothers, of whom she had several, are free from any manifestation of cachectic diathesis. Although born in a favorable condition of life, this patient, according to her own account, early exhibited signs of strumous diathesis. As early as she can recollect, she was afflicted with pains in the limbs; and, at the age of ten, the glands became affected. Lumps of considerable size would frequently form about the throat and ears, and also a lump in her left breast, about an inch and a half in diameter. A small protuberance had made its appearance on the upper lip, which, to use her expression, was said to be a mother-mark. This pimple, or mark, gave no trouble until 1836, about her 22d year of age, when it assumed the character of a sore, with but little secretion for a time, but afterwards accompanied by an unhealthy, sanious discharge. The ulceration soon became about three quarters of an inch in diameter, and seemed disposed to progress rapidly on the surface of the lip. Alarmed at this extension of her malady, she consulted some physicians of eminence, who pronounced the disease cancerous, and recommended recourse to an operation. This proposition was assented to, and an operation was performed. The wound seemed to heal favorably, and the local disease was apparently cured. Her general health, however, remained feeble; and she proceeded to Philadelphia to consult Dr. Dewees, then a distinguished professor in the University of Pennsylvania. Under the care of this physician, her general health became much improved, and for some years she remained in good health, without recurrence of ulceration of the lip. In 1845, she had

an attack of malarious fever, during which the lip became tumefied, and ulceration, at the seat of the old sore, broke out again, with more malignancy than ever. The disease again assumed a chronic form, and, under the use of some alterative medicaments, remained stationary for nearly three years. In October, 1848, another exacerbation of the disease took place, attended with excruciating pain and a slight extension of the ulceration. These symptoms were again impeded by the use, as she supposes, of sarsaparilla, and some other unknown medicines. From this time the disease remained almost passive, until January, 1850; at which time, after the birth of an infant, the ulceration began to extend and to invade the entire thickness of the lip, destroying, in its progress, the entire substance of the lip in nearly its whole extent, from the free margin up to the base of the nose; on the right side, the ulceration also extended for more than half an inch, encroaching on the face along the side of the nose, detaching the ala of that side from the cheek, for nearly half an inch. The ulceration had again become passive, when the patient presented herself for my advice.

Her appearance, when first seen by me, was really deplorable. She was much emaciated, and her countenance wore the expression of intense mental suffering. The front teeth of the upper jaw were tolerably sound, but somewhat loose; the two canine teeth were partially, and the four incisors entirely, exposed; the gum, also, corresponding to the incisors, was exposed as far as the base of the nose, and was dry and purple for want of its natural covering. The ulcerative process had destroyed the entire thickness of the lip up to the base of the nose; on the right side, extending to the angle of the mouth; on the left side, to within one line of the angle of that side. The ulceration had also extended upwards on the right side of the face, beyond the level of the base of the nose, and had detached the lower portion of the ala. The edges of the ulceration were hard, thickened and irregular; in some parts dried up, in others presenting patches of angry aspect, apparently ready to take an acute ulcerative action upon the slightest exciting cause. There was no glandular enlargement at the base, or near the ramus of the lower jaw.

Viewing the condition of this patient, with such a dilapidated system, deteriorated, also, by perverted constitutional diathesis, I could not be but doubtful of the success of an operation which would have for its object, not only the removal of the diseased tissues, but the restoration of the entire substance and extent of the upper lip. The lady was remarkable for her intelligence, and I explained to her the probability of failure from the nature of her case, and the direful results which might ensue if the necessary incisions of such an operation did not unite. She replied that she wished me to perform the operation, if it were at all practicable, and that she would

abide the result with fortitude and resignation. Allowing her a few days to recover from the fatigue of the journey to the city, I assented to perform the operation on the following Thursday, 21st April.

Operation—The patient being seated on a chair somewhat elevated, and placed so as to be in a favorable light,—with a piece of fine carmine, pointed, I commenced by making dots on the face, in the line of the incisions intended to be made. The lower line ran in a direction from the angle of the mouth towards a point a little below the apex of the lobe of the ear; the upper extended from the base of the nose toward the centre of the antitragus; a slight curve, with the concavity looking upwards, being given to each line. One assistant supported the head, compressing at the same time the facial arteries; while another depressed the lower lip with a light curved spatula. Passing the forefinger of the left hand along the mucous surface of the cheek, as far as the anterior margin of the ramus of the jaw, and holding in the right hand a long, narrow, straight bistoury, I transfixed the entire substance of the left cheek on the lower line, at a point corresponding to the anterior margin of the masseter muscle. Carrying the bistoury towards the commissure of the mouth, the entire tissues of the cheek were now divided. Seizing the flap thus formed between the left forefinger and the thumb, and holding it upwards, the bistoury was carried freely along the line where the mucous membrane is reflected from the upper maxillary bone to the cheek, and made to separate the tissues upwards for some lines from their attachments to the superior maxilla. Still retaining the flap with the left forefinger and thumb, the bistoury was again passed through the substance of the cheek, on the upper line in front of the masseter, and carried forward so as to divide the cheek as far as the base of the nose. A quadrilateral flap was then formed of the tissues of the cheek, containing, in its substance, the orifice of the duct of Steno, which had been carefully avoided while the cuts were being made. The oral side, or edge, of this flap consisted of the indurated and ulcerating margin of the disease. With a pair of strong hare-lip scissors, this margin was removed, so as to leave a free, straight, and healthy margin.

Changing the bistoury to the left hand, a similar quadrilateral flap was then formed, in the same manner, on the right side, from the tissues of the cheek, and the diseased margin disposed of, so as to leave a healthy, straight edge, corresponding to the same edge of the opposite flap. The bistoury was next carried transversely across the base of the nose, so as to remove the diseased margin at that part, and, at the same time, to vivify the tissues in that direction.

There still remained that portion of the disease which required removal, extending, for about half an inch, along the right ala of the nose. This

was removed by incisions so fashioned as to form a triangle, and so as to leave healthy margins, free from any induration.

It now remained to bring together the various bleeding edges thus vivified, and to retain them together by the twisted suture. An assistant now pressed forward the quadrilateral flaps of each side, so as to bring in contact, on the median line, the vertical margins of the two flaps. Four suture pins, suitably placed, maintained the apposition in that direction. A pin on each side was now inserted, so as to regulate the transverse extent of the mouth, and to form the new commissures as near as possible in the site of the old. To unite the lips of the wound in the line of the lower horizontal incision, four pins were inserted on each side; and to effect the same end, along the line of the upper incision, four more pins on each side were inserted. Apposition of the bleeding surfaces across the base of the nose was effected by means of four points of interrupted suture; and three additional points of suture were used to bring together the edges of the triangular loss of substance along the ala of the nose.

The free border of the new lip, formed by the lower margin of the flaps of each side, united in the median line, still presented a bleeding surface. To obviate this, and to regulate the shape of the prolabium, the mucous membrane lining the new lip was drawn over the bleeding edge, and incorporated by four points of twisted suture with the tegumentary tissue.

During the operation, there was a considerable flow of blood; but this was easily arrested by the application of the sutures. The operation was performed in the presence of Dr. Williams, Dr. Horace Green, Mr. Maurice Peugnet, and several other medical gentlemen; and I was ably assisted by my friend, Dr. J. J. Crane, and by my colleague, Professor Barker, who administered small doses of chloroform during the different steps of the operation. *Vide* Plate No. 1.

Progress and Completion of Union.

Operation performed on Thursday, April 21st, 1853. Patient went on well until Friday, at midnight, when she complained of a good deal of pain in the right cheek and forehead. This was eased immediately by applications of Tinct. of Aconite. On Saturday, a slight puffiness of the right side was observed; this commenced at the root of the nose, and gradually extended until the upper portion of the cheek and eyelids were considerably swollen. Sunday—Patient comfortable, and swelling of right side considerably diminished. Monday, 4th day—Swelling almost entirely disappeared. Five pins removed this day from points where union seemed most complete. Three suture ligatures also removed; patient feels very well. Tuesday, 5th day—Favorable symptoms continue; eight pins removed, one of which is from the mesial line of union of the lip. Union has taken place

along all the incisions, except that at the base of the nose. Here, at the point where the interrupted sutures were used, there is suppuration for about one third of an inch. The points of suture at the angles of the mouth and at the lower part of the labial median incision, still allowed to remain, although there is adhesion at these places. The sutures along the prolabium removed. Patient complains of weariness from want of exercise, but feels perfectly well otherwise; pulse 98. 7th day—28th April—Removed seven more of the pins. Still leave in those at the angles of the mouth. Patient tolerably comfortable. Union at the angles of the nose has not taken place by adhesion; apparently the surfaces begin to granulate in a healthy manner. No fever; pulse somewhat irritable; continues to use fluid material for food. 8th day—Friday, April 29—Removed the pins at the angles of the mouth, and the two lower pins at the median line of union of the lip. Union perfect everywhere along the incisions, except at the base of the nose—slight adhesions here. Granulating process proceeding well. Patient much more comfortable to-day, than since the operation. April 30th—9th day—The parts along the base of the nose continue to granulate apparently healthy. A slight slough is evidently being thrown off along the median line of union of the lip, nearly as far as the free border, though not through the entire tissues of the new lip. The entire line of all the other incisions has firmly united. May 1st—10th day—Dressed the lip. The slough separates, and will probably leave the new lip entire. May 2d—11th day—Dressed the lip. The slough continues to separate; it is superficial, and leaves the lip entirely continuous. General health as good as usual. May 3d—12th day—The slough has separated and proves to be merely superficial. Granulation is proceeding well. Patient comfortable. May 4th—13th day—The lip where the slough separated is granulating finely, and new skin is beginning to appear; patient feels well. May 14th—23d day—Union complete, cicatrization perfect. New lip formed. Shortly after this date, the patient left New York for *her own home*, with the character of her face restored to its natural aspect, and in much better health and spirits than she had enjoyed for many years; feeling, as she remarked, as if she "inhabited another body."—*Vid.* Plate No. 2.

PARACENTESIS THORACIS.

An analysis of twenty-five cases of Pleuritic Effusion, in which this operation was performed. By HENRY I. BOWDITCH, M. D., one of the Physicians of the Massachusetts General Hospital, and Member of the Societies for Medical Observation at Paris and Boston.

IN 1851 I presented to the Society, and subsequently published, some cases* in which Paracentesis Thoracis had been performed. I propose, in this paper, to continue the consideration of that subject. For this purpose, I shall present an analysis of my preceding paper, together with the records of sixteen more cases, in which I have operated or have seen others operate, since that publication. I shall give a tabular statement of some of the prominent features of the twenty-five cases which have fallen under my notice since April 17, 1850, with several inferences therefrom, and shall conclude with a brief account of a paper on the subject, published recently (Oct., 1853) in the *Archives Générales de Médecine.*

Analysis of my Previous Paper.

In the paper above alluded to, I briefly stated the facts relative to the history of the operation, and to the state of medical opinion on the subject. The operation, having been suggested by earlier writers, has never been used freely until since Laennec's discovery has enabled us to make our diagnosis more accurate than was possible without auscultation. Since 1843, Trousseau, Barby, Reybard, Schuh, Raciborski, and others, have performed it on the continent of Europe, while Messrs. Hughes and Cock, Hamilton Roe, &c., have operated in England. There has been, however, an unwillingness on the part of the great body of the profession, in Europe and this country, to look upon the operation with favor. My own experience had, however, led me, for many years, to think that some method should be devised for the *easy* and *safe* removal of fluid effused into the pleural cavity. I had seen patients die from simple effusion, I had seen others gradually fall in phthisis, or slowly recover, after perhaps years of misery, with a distorted trunk and shattered health. I asked the surgeon's best aid—by the scalpel. The result was very unsatisfactory. Finally, from Dr. Wyman, of Cambridge, I learned the use of the *small exploring trochar and canula*, as he had applied it a few weeks before, in the case of one of his patients. I saw, at a glance, the great value of his method. A full description of it may be found in my first paper. It is sufficient, for my present purpose, to say that a strong

* American Journal of Medical Sciences for April, 1852. Article on Paracentesis Thoracis, previously presented to the Boston Society for Medical Observation.

exploring trochar and canula have, in all the cases I shall present, been introduced, usually between the 9th and 11th ribs, and below the angle of the scapula. To this canula, by means of an air-tight apparatus, a strong suction pump has been attached, and the fluid has been drawn out, without the possibility of the introduction of air, *while the aperture that has been left has been so minute that no blood has flowed, and it has immediately closed* on the withdrawal of the instrument.

In that paper, I gave the details of eight cases. The *prominent* points of these cases may be seen in the tabular statement in this communication. The results to which I arrived, from my previous thought on the subject, and from the examination of the cases, may be best expressed by the following extract from the preface: "My own mind is decided upon the following propositions: I shall puncture the chest; *first*—whenever, either in an acute or chronic case, I find a pleural cavity *distended* or *filled* with fluid; *second*—whenever, in any *acute* case, remedies seem to have but little effect towards causing an absorption of the fluid, and after a fair trial has been made of them for two, three, or four weeks; *third*—I shall puncture in cases of larger effusion, complicated with organic disease, in the hope of relieving urgent dyspnœa or to lengthen life."

Upon these principles I have acted since they were laid down. The only change I should make in them, at the present time, with the experience of the results of twenty-nine punctures made in the sixteen new cases is this, viz. I would not wait so long as "three or four weeks" in acute attacks, provided I found that the effusion continued steadily to augment in spite of remedies. Moreover, if called in an acute case that has lasted a month, and in which there is an amount of fluid effused, sufficient to materially compress the lung, I shall advise a puncture, as the *first* step to be taken, previously to the use of the remedies commonly employed in pleuritic effusions. I trust that the result to which I have arrived from *seeing* the patients, may not be different from that to which the reader will arrive from the *perusal* of the following cases.

They are given in the chronological order of the operations, but they, with those in the preceding paper, may be classed in four main divisions, according to the effect of the operation:—

First Class, or those cases in which the operation has been the chief or sole cause of the cure of the pleuritic effusion. Cases* 1, 7, 8, 11, 12, 14, 15, 18, 20, 21 (total, 10), are of this class.

Second Class, or those cases in which the puncture has given more or less, and at times very great, temporary relief, so that some of the patients have asked for the operation a second, third, or fourth time, for the sole ob-

* See tabular statement.

ject of getting relief. Cases 2, 3, 4, 9, 10, 13, 16, 17, 19 (total, 9), are of this class.

Third Class, or those in which no relief was obtained, because no fluid could be removed. Cases 5, 6, and 25 (total, 3), are of this class.

Fourth Class, or those still under treatment, which are progressing favorably, with more or less rapidity. Cases 22, 23, 24 (total, 3), are of this class.

Cases.

Case 9th.—Mr. G., æt. about 20, clerk. I saw him with a physician of this city, Oct. 17th, 1851. During the winter of 1850–1, he had had some pulmonary trouble; but the patient assured me he had been well from that time until the actual attack for consultation upon which I had been called, and which proved to be one of very latent pleurisy of two or three weeks' standing. He had had no pain or dyspnœa, and only a slight cough, for ten days or more. He was able to be at work, but felt not quite well. On examination, I found signs of effusion into the chest. They had been recognised by the attending physician. I advised blisters and iodide of potassium. This treatment was continued until Nov. 6th, but with a gradual increase of all the symptoms. On that day, there was perfect flatness of the lower third of the right back, the sound changing by change of posture; a peculiar stomachic resonance above the line of flatness; ægophony; on succussion, some gurgling, but no metallic tinkling. The respiratory murmur was slight, even at the apex of the lung; but no râle was heard even on coughing. His general symptoms were improved. He was able to walk about, although some dyspnœa was evident. Pulse 100; skin comfortable, slight sweat at night. As the iodide had not been thoroughly tried, and as there was an indisposition to the puncturing of the chest, on the part of the attending physician, I advised 5 grs. 3 times daily, and blistering to be continued, and certainly not to allow a much longer time to elapse before doing the operation.

Nov. 22d. He was suddenly seized with pain in his other side, with great dyspnœa and anxiety. He had, however, obtained relief from a poultice and Dover's powder before I saw him. The auscultatory phenomena were as before, except that there was dulness to the second rib in front; there was no evidence of serious trouble in the left back, the murmur being heard pure everywhere, even to the base of the lung.

I urged a puncture; and on the 24th one was made, between the 9th and 10th ribs, below the angle of the scapula. Nine ounces of yellow serum flowed readily, and afterwards not a drop could be drawn, notwithstanding I passed a probe through the canula and found it perfectly pervious. Convinced that more fluid remained, I withdrew the instrument, and introduced it under the axilla, one or two ribs above; and eighteen ounces

more, of a similar fluid, came freely. The chest became somewhat resonant to the point of the puncture, and the ægophony was heard only at the lowest part. The patient suffered not at all, except that a cough came on which was rather troublesome. Dover's powder and absolute rest were ordered.

Dec. 2d. Had been improving; no returns of dyspnœa; patient felt brighter; he was able to lie on either side; pulse 108 to 112. On percussion, was really flat only in the lower two inches of the back. Respiration heard, vesicular though indistinct, along the vertebral column to near the base of the chest. Blister twice weekly, (3x3.)

Dec. 13th. Better in strength and appearance. His digestion was good. Pulse about 100, and occasionally a slight flush, P. M., and a little sweating at night. Respiration less labored than formerly. On inspection, the right side was evidently the larger. Murmur heard through the whole back, though indistinctly, to a line at the edge of the axilla; bronchial towards the base; absent on the side, under the axilla, and on the breast. No râle, but a metallic echo was heard on coughing. Good pulmonic sound, on percussion, on the back to where the bronchial respiration was heard. There it was *stomachic;* dull below the line of the nipple, front and side. As the patient was annoyed by the sound of liquid, and as he thought he had breathed less easily for a day or more, he desired to be operated on. I accordingly punctured, and drew off eighteen ounces of an *amber*-like fluid. After the operation, the bronchial respiration and the stomachic resonance were much lessened. Cough again supervened, as at the previous operation; the pulse was slightly accelerated, but the patient was not at all fatigued. Continue medicine. Tinct. of iodine to the side.

Jan. 14, 1853. The patient had continued without much change. He *felt* well—walked down stairs; was able to lie on either side. The pulse, however, was always accelerated—often 120. Auscultatory phenomena, however, revealed a similar state to last report. I drew off twenty-one ounces, more purulent.

Feb. 9th. A similar condition of the patient, except that he was rather improving; he had no hectics; he had gained flesh. I drew off again twenty-one ounces of a fluid still more purulent, and running but slowly.—Cod-liver oil. Ride out daily.

March 9th. Looked finely; able to walk out freely. Cough, very much less. Only slight dyspnœa. No gurgling heard since last operation. Dulness, much as before. Respiratory murmur heard further out on the side. I operated between the 5th and 6th ribs, and further forward, toward the nipple. Two pints of freely running fluid were removed. Patient was much more able to assist himself than after either of the previous operations. He had less cough, but a sense of stricture across the chest. Cod-liver oil and phosphate of lime ordered.

Two days after this operation the patient went into Boston to a convivial meeting, and after spending the day, drove out some miles. The weather was excessively cold, and he was very severely chilled. A febrile paroxysm supervened; and the pulse rose to 120, and a general feeling of distress, especially of limbs, was experienced. On the 17th there appeared what seemed to be a general inflammatory condition of the absorbents; small red lines were seen running along the legs and arms; quite tender to pressure. No trace of inflammation on trunk—and the point of puncture was perfectly healed. Patient had an anxious, sublivid look. The attending physician had used alcoholic lotions and 12 grs. of iodide of potassium. Meanwhile, the physical signs, though similar to what was noticed before, were rather more favorable.

He recovered from this acute attack in a few days, but he never was as well again; and, in about five or six weeks, signs of tubercular developments showed themselves in the diseased side—marked by crackling, and, subsequently, pectoriloquy at the apex.

Owing to illness, I did not see him afterwards; but in May, as there were signs of pointing, the attending physician opened with a lancet, and pus continued afterwards to flow, till he died suddenly, in the night of August 7, without warning, in consequence of copious hæmorrhage from the aperture. He had been, however, gradually declining for months. His physician writes, "Life had been despaired of from day to day; and, previously to the hæmorrhage, he had coughed very hard. The opening in the side did not become fistulous, in the true sense of that term, for it showed a disposition to heal from time to time, so as to render necessary the introduction of a tent. Injections of a watery solution of gum myrrh had been used every other day for some time before his death, whereby the patient was comforted, the discharge was lessened and made less offensive."

Reflections.—I had no doubt, when I was first called, that the case was one of *pleuritic effusion* of the most latent kind. But I feared, from the fact of even a trivial cough having existed before, that it was of a tubercular origin. I felt the importance of an early removal of the fluid; yet the small amount of it, and the slightness of the symptoms, connected with the fact that medical opinion was adverse to thoracentesis, prevented me from suggesting the operation at my first visit, Oct. 17. At my second, twenty days afterwards, I submitted the idea to the attending physician; but as the same reasons existed, the operation could not be performed, although the fluid had increased. Finally, the sudden attack of dyspnœa, on Nov. 22, a little more than six weeks from his attack, led all parties to feel that more active measures should be used. As I view the case now, in the broad light of ulterior experience, I think the delay was probably pernicious, possibly fatal; for, although in our present knowledge of the subject, we cannot be

sure that an early operation will prevent the tendency to tubercular development, the fact that whenever any amount of fluid is drawn off, the *rational* signs almost invariably improve, and the examples we have of the excellent results of an *early* operation in cases of pleurisy evidently tuberculous in their origin—these facts prove, almost conclusively to my own mind, that *it is better always to operate as early as possible in any case in which there is any considerable amount of fluid, especially in one of a tuberculous tendency.*

In regard to the other interesting points in this history, I would state that the patient always experienced so much relief from the operation, that he was sure to be the first to ask for its repetition. It may be remarked, also, that he had no alarming return of dyspnœa, subsequently to the first operation.

The last topic, specially suggested by this case, is the violent hæmorrhage, causing death. It will be remembered that this took place at least three months after the opening by the lancet, and six months from the last puncture. I have seen a similar case, under the care of another, in which exactly similar phenomena occurred, except that the case was one of pure empyema, punctured after months of illness, and again opened with the lancet when pointing. After the second opening, the patient improved very much, but a fistulous passage remained. From this occurred a hæmorrhage, which was repeated to an alarming degree a few days after. The patient was becoming anæmic. A surgeon was called, who enlarged the opening; could find no vessel, but a bleeding granulating surface. The aperture into the thorax being fully dilated, the patient had no more hæmorrhage, and slowly recovered. The question may be asked, if the puncture had any connection with this state of things. My own opinion is, that there is no proof of their connection. On the contrary, the facts as they stand are decidedly opposed to the idea of such a connection. I speak of it, however, in order that all circumstances may be known that seem, even remotely, to be favorable or otherwise to the operation, as urged in this paper.

Case 10th.—Mr. T., æt. 30, a rigger, I saw Feb. 17, 1852. It appeared that, for a year before, he had had cough; but that, during the summer, it had been slight, so that he kept at work until Dec. 18th, 1851. He then had sharp pains in the right side of the thorax, for which venesection was performed. He kept his bed, at that time, for a week; and then, feeling better, went out, daily, for a fortnight. He then became more ill, and he had been confined to the house for five or six weeks previously to my visit. Hectics for the same length of time. His appetite, from the first, had been poor, but his digestion good; tongue red, and with a slight coat; dyspnœa

always from Dec. 18th; at times orthopnœa; expectoration considerable, opaque. Pulse 124, skin warm and moist. His countenance was haggard and distressed; he was sitting up, from inability to assume a recumbent posture. On percussion, flat below the third rib, front and behind—not clear above. Respiratory murmur obscure to third rib, indistinctly bronchial below, with a metallic tinkling on coughing or shaking. Behind, similar results, and ægophony. At the left apex, some rudeness of murmur. Right side of chest moved, during respiration, less than the left; intercostal spaces *contracted*. Diagnosis—tubercles and pneumo-hydrothorax. I advised a puncture for *relief* to the suffering; but as the patient was unwilling to submit, I ordered iodide of potassium, 3 grs. three times a day, and a blister every fifth day.

Feb. 27, i. e. ten days afterwards, much more dyspnœa—no relief. Patient then consented to the puncture. I made it in the usual space, between the eighth and ninth ribs, and drew out a little purulent fluid with much difficulty. I then punctured two ribs above, and two inches further forward, and removed ℥ xv. with very little pain and much relief to the distress of the patient.

March 3. For a day, the relief continued, but soon the dyspnœa began to return; cough constant; strength less. At my visit of that date, he had complete orthopnœa, and was in great agony. I told him I would do as he chose. I had little hope of giving, by any puncture, more than a temporary relief to his sufferings. From his previous experience, he requested me to operate. I punctured at the lowest point, and drew off ℥iii. of a purulent fluid; and on puncturing above, I procured *nothing*. The patient felt no uneasiness, except that after the operation, he, having lowered his arm, struck the canula, and caused much pain by its motion between the ribs. The next day, there was some redness and tenderness at the point, which subsided under a hop fomentation. The patient died on the 8th. No autopsy was allowed.

I present this case simply as a specimen of the relief obtained in a hopeless disease. This relief was more evident to the patient than appears from my record. The fact, however, that a request was made by himself for a second operation, is a proof of the little real suffering sustained, and the relief procured. The inflammation after the fourth puncture, though slight, was more than I ever noticed before; and was, doubtless, owing to the striking of the canula while in the wound. Its rapid subsidence, however, especially when connected with the ordinary absence of all symptoms of the kind, is not unfavorable to the operation.

Case 11*th*.—Mr. R., æt. 59; "An old soldier," wounded at Waterloo; in U. S. 23 years, where he had had numerous occupations, and had

indulged in free living. He was "well," till his disease began, for which he entered my service at the hospital. About five weeks before his entrance, he had had pain over the left crista ilii, and in a few days had hæmaturia, with dysuria.. Appetite lessened; very costive; some slight dyspnœa; cough very seldom. Very little treatment previously to entrance. At his entrance, he could lie easiest on the right side; but he had been, however, able to lie on either. He sat up, and could talk, but with evident dyspnœa. Respiration, 17; pulse, 96; skin, normal; tongue, moist, with a thin white coat. On inspection, intercostal spaces filled in the lower half of the left chest. Percussion, flat all around the same side, below a line on a level with the second rib. Murmur scarcely perceptible throughout. Puerile at right, with slight, fine crepitus at the base. Ægophony over dull space. Heart beating to the right of the sternum. I ordered inf. sennæ comp. f. ℥ iii. with cathartic enema; broth for dinner; house diet at other meals.

Dec. 29, I punctured between the eighth and ninth ribs, behind, and drew off ℥ xxiii. of a yellow serum, with relief to a sense of fulness there, and with more ability to lie on the right side. Pulse, a short time after operation, was 98. Ordered iodide of potassium, gr. iii., three times daily, in syrup of sarsaparilla. Blister (3×3) to left side. He had an opiate given at night.

Dec. 30. Much lighter since operation; less cough, and not painful; urine much increased. Blister very troublesome.

He soon after left the ward, and consequently fell under the care of my colleague, Dr. Bigelow. His subsequent history is as follows. Sol. magnes. sulph. was given several times before the 11th of February. Afterwards he drank freely of cream of tartar. Under these remedies, his bowels were freely opened, so that, at one time, the cream of tartar was suspended.

Jan. 2 (four days after the operation), his chest was flat in the lower two-thirds of the back; bronchial respiration and ægophony there. Obscure respiration in the left breast.

Feb. 1. Friction sound at the lower part of the left breast. On 15th it was much stronger. But Feb. 1st, he had some cephalic symptoms; cephalalgia, scintillations, &c. Nausea and vomiting on 8th. Pulse quickened. On 18th, some wandering of mind. 21st, twitching of muscles, and insensibility. On 22d, he died comatose.

Feb. 24, autopsy by Dr. J. B. S. Jackson. The records of the chest are as follows, "Left pleura mostly quite free; strong old adhesions over apex only, and along the lower lobe near the spine. A few ounces of turbid, serous fluid only in the cavity; nothing like pus. A delicate film of false membrane was seen over most of the pleural surface, just enough to obscure its *polish* for the most part; in some parts ⅓ or ½ an inch thick, translucent, organizing. Left lung small, but more or less air everywhere in it. Consider-

able congestion; weight ℥ xiii., length 10 inches. Right lung, everywhere old pleural adhesions; lung itself healthy, but congested. Stomach, extensive cadaveric softening of mucous membrane of left extremity. Kidneys healthy, except for a simple serous cyst, the size of a nutmeg. Prostate generally enlarged. Lobe stands out directly into the bladder, size of a marble, and round. *Head* acute meningitis at base, not very extensive. Pia mater there, red, flabby, and rough, but no decided granulations. Convolutions flattened, and surface dryish. Lateral ventricles contained ℥ v. of serum, with softening of the surrounding substance."

Remarks.—The totally latent character of this attack; the prominent symptoms (hæmaturia, &c.), in fact, leading the physician to suspect nephritis rather than pleurisy; the easy diagnosis by means of the physical signs; all these are facts of importance.

As to the advantage derived from the operation, no one, I think, will doubt about it, who remembers the improvement in the rational and physical signs; and, above all, the appearances at the autopsy. A very little fluid was found in the pleura; the membrane was inflamed only in the slightest degree; the patient evidently had died of his acute meningitis, while recovering from his pleurisy, which recovery commenced with the time of the puncture of the chest.

Case 12th.—Mrs. S., æt. 21, I saw with a physician of Boston, Feb. 27, 1852. The antecedents of her actual condition were somewhat vaguely obtained, owing to the sufferings of the patient. It appeared, however, that she had had a cough during the autumn, and that, about six weeks before I was called in consultation, she had what was called pneumonia (? pleuropneumonia, or, more probably, pleurisy), with severe pain in the right side. From the more serious symptoms caused by this, she had recovered in about two weeks, and she was able to walk about, though she was weak. She soon became ill again, and with evident signs of pleuritic effusion. She had had hectic paroxysms. Menorrhagia she had been subject to till two months before, and since that, amenorrhœa. At our visit, she appeared in great suffering with dyspnœa, pain and discomfort in the side. Her previous night had been very bad. Her countenance was pallid and haggard; her pulse was 108.

The physical signs were, flatness over the whole of the right chest; strong tubular respiration to the third rib; with great vocal resonance. Ægophony at the back and side, below the middle of the scapula. Puerile respiration in the other lung. No râle anywhere. The right side of the chest was very prominent, and at one spot, it was very tender; and as it had given evidence of fluctuation, an escharotic had been applied some days

previously, but the eschar had not separated. The intercostal spaces were *more contracted* than usual.

I punctured at the usual spot (viz. below the angle of the scapula and between ninth and tenth ribs), i. e. about five or six inches from the spot that was pointing, and ℥ xli. of very thick pus were slowly drawn out, without any difficulty, save at one time a slight stricture across the chest. The prominence described above, subsided at least one-half, and some resonance was heard, on percussion, down to the line of the puncture. The cavernous voice in front, and the ægophony behind, were nearly gone; while the bronchial respiration in front was very much lessened. The whole aspect of the patient was wonderfully improved. She smiled, and felt much relieved. Pulse 96; hand cool, damp; asked for food. Ordered iodid. potass. ℥i., syrup sarsaparilla ℥ iv., ℥i. three times daily. Eat meat, and drink ale cautiously.

29. Night very comfortable; much less oppression and soreness of chest; but the part cauterised had risen again, was puffy and crackled from air in it. Similar crackling felt in the cellular membrane above, on the parietes, as high as the second rib. On percussion, good resonance to the point punctured—dull below. Cavernous respiration and ægophony wholly gone; and in their place was a want of respiratory murmur in the back, and metallic tinkling in front.

March 3. Much better; appetite sharp; bowels costive; no night sweats; pulse 90; chest, less prominent; eschar removed. Physical signs as before, except more vesicular respiration to the angle of the scapula, and across a space of three inches broad from the vertebral column. Rochelle.

March 9. On 4th, the abscess broke where the eschar had been made, and discharged, after a violent cough, an immense quantity of pus, so that the mattress was thoroughly soaked. Relief was obtained, and the discharge continued until 8th; some cough; slight expectoration. Physical signs—crackling, whole of the front of the chest (evidently from the lung expanding). Metallic resonance gone. Percussion very much better behind, and the respiratory murmur was heard even out to the axilla. Continue treatment.

March 13. Steady improvement; digestion perfect; slept well; no fever; sat up an hour yesterday; I learned that a new discharge from the same point had occurred, copious, and that from that time it had been more or less constant. At the visit it ran freely; cough very light; able to lie on either side; pulse 110. Respiratory murmur a little more, but much as at previous visit. Slight ægophony, at the very base of the chest; side still motionless; some emphysema still, but less in front.

Subsequently I did not see her; she went into Maine in August, was feeble at the time. After a few weeks residence there, she returned to East

Boston in September, when the fistulous opening closed entirely. From that time she has gained perfect health. Now (Nov. 18, 1853) she feels better than for years before her illness. She has no cough, except occasionally on taking cold. She is a stout, able-bodied woman. Her side is but little altered in form. Through her clothing, the change is not perceptible; but the dressmakers perceive that the left side is the larger. The respiratory murmur is vesicular everywhere, but less throughout the right, especially in the lower part of the lower lobe, where it is scarcely perceptible.

Remarks.—The puncture in this case gave the most gratifying relief; and, although the pleura opened in a few days, the patient looks back upon the operation as having given her the first step towards recovery. She never suffered afterwards as she had suffered before. Could not relief have been obtained earlier? Undoubtedly, such might have been the fact; and the reason why the operation was not performed was the general unwillingness, at that time, on the part of the profession, to believe in the advantage to be derived from it. The same reason allows, at the present time, hundreds to be suffering from the same cause, in various parts of our country. May I hope that this paper will tend to the alleviation of their sufferings?

Case 13.—Mr. B——, aged 40, Irish laborer, I saw with Dr. E——, Dec. 30, 1852. Generally well; two years ago, some dysenteric symptoms for eight weeks. Well afterwards till July; then slight dry cough; on 14th, fell, and struck his left side upon some stones. He had pain in the side ever afterwards, and although he was able to be out of doors, he did but little hard work. Shortly after his fall, he was exposed in the night to a drenching rain, and was thoroughly wet. He had a bad chill, and the pain was much increased. He was then treated by a physician, and got better again; but about six weeks afterwards, while pushing a raft, he fell into the water, and was obliged to walk some miles with his wet clothes upon him. After that period he had done no work, but till within nine weeks he had occasionally gone out of doors. During these nine weeks, he had been confined to the house with a gradual aggravation of all his symptoms. During the three weeks preceding my visit, he had heard "a splashing" in the chest. His cough had been at times very hard. His expectoration had been slight, never bloody, generally white and frothy. He was unable to sleep on the right side, although he could lie a short time upon it. Tongue smooth; appetite poor; bowels well. He panted very much, and was in great distress. He was seated, moaning, on the bedside, with his head bent forward; respirations from 48 to 52 per minute; pulse, 96; skin of natural warmth; urine sufficient, and by report of patient was natural. Little motion of the left side of the thorax; on succussion and coughing there was a sound of fluid and of

air in the chest. The left chest was dull over a large space, dulness varying with the change of posture of the patient. Metallic echo heard in the breast on coughing; heart pushed strongly to the right of the sternum; lower part of the left chest rather prominent, quite tender, soft, but no evident pointing.

A puncture was made between the eighth and ninth ribs; great relief followed. In fourteen minutes I had drawn out ℥ lxiv of a purulent fluid. Cough came on then as the sole unpleasant symptom during the operation. The heart fell back a little. Tincture of Iodine externally, and Iodide of Potassium internally, were ordered as in the other cases.

Jan. 3. His nights had been much easier; less cough. No moaning, and whole aspect much improved; appetite poor; pulse 96; had kept in bed all the time; urine as before operation; some tenderness, low down on the left back, but more particularly near the point of the puncture. The respiratory murmur seemed a little more evident at the apex of the lung. Otherwise, the signs remained as before the operation.

Jan. 10. The tenderness and peculiar prominence of the back had subsided; the respiratory murmur was heard indistinctly along the vertebræ, and some resonance to about an inch above the point of puncture; otherwise, physical signs as before; patient had become more feeble, and had had more dyspnœa for a few days, and lay, moaning, at my visit. Desired a second puncture as a relief, though he had no hope of a cure.

Jan. 11. I operated a second time, and in 46 minutes removed ℥clxxv. of thick pus; previously to the operation, the left side was $2\frac{7}{8}$ inches larger than the right; afterwards it was only $1\frac{1}{8}$. Strong metallic tinkling was heard everywhere front and back. The operation was borne very well, and afforded vast relief; the patient sat up on the side of the bed, with much less dyspnœa, and chatted with his friends. He was advised to enter the hospital, but he died within forty-eight hours, having accidentally taken an overdose of opium. No autopsy was allowed.

Remarks.—Let it be remembered that this patient had been ill more than five months with a pleuritic effusion. When I saw him, he had orthopnœa, great emaciation, and all the marks of approaching death, unless relief were obtained. I conceived it right and best to operate, but I did so with little hope of doing permanent good. There was a *chance* of permanent relief, and almost positive certainty of temporary relief from agonizing distress, and by an operation, as I believed, perfectly innocuous. The results, as far as they went, were satisfactory. He obtained so much relief from the first puncture, that he eagerly sought for a second, when I drew off the largest quantity of fluid, and that likewise being pure pus, I had ever extracted, viz., about $5\frac{1}{2}$ quarts, which, added to the two quarts previously taken, made about $7\frac{1}{2}$ quarts in twelve days.

Case 14.—March 19, 1853. Saw with Dr. —— of Roxbury, Mr. ——, age 24, clerk. I learned that he had lost a brother and sister by phthisis; he had a cough seven years before, and slight hæmoptysis; he went to Cuba, and returned well, and had been in active work since, with only an occasional cough; two years ago he had a slight pain in the right side, and could not, for a time, easily straighten himself; a fortnight before I saw him he weighed 162 pounds, and felt in perfect health. On 8th, he went to his warehouse as usual, and, P. M., he had chills, a slight cough, and a very few sputa; he returned home, and did not leave the house afterwards. In two days a stricture came on in the chest, which gradually augmented from day to day; no marked fever; his sleep had gradually become more and more disturbed, and finally he was unable to lie on the left side; he sat up most of the day; his appetite was lessened. Dr. —— had discovered, early in the disease, an insidious attack of pleurisy; and the effusion had rapidly progressed until the time of my visit, while the patient had been daily getting worse in his general symptoms. I found him sitting up, rather pale, and thin; no great dyspnœa, but some labored breathing while talking; pulse 120, small and irritable. The right side of the chest was larger than the left, and felt solid on percussion. Flat percussion, except at the very apex, behind; absence of respiration in the same space; slight crackling on cough, at the left; ægophony all over back, below the spine of the scapula. Diagnosis: very large effusion, probably tubercular.

On 20th I punctured in the usual place, and removed three pints of a yellow serum; severe stricture across chest, and coolness of surface, with weakness of pulse and debility supervened. Wine and water. Iodide Potassium grs.iij in infusion digitalis, three times daily. Series of blisters to the side.

22d. Much relief; had slept better, more appetite, urine augmented; looked better; stricture in chest gone, Pulse 96; could lie down easily on either side. Percussion clearer, even down to the point of puncture behind and to the third rib in front. Respiratory murmur heard indistinctly to the same parts. Less crackling at the apex. Ægophony gone, except in lower two or three inches. No inflammation about the point punctured.

From the time of the operation, the rational signs improved; so much so, that without the physical signs to guide us, we should have considered him as getting well quite fast. The treatment was continued. The physical signs however indicated that the lung did not readily expand in its entire mass. On April 30th, I reported the physical signs as follows:—Decided contraction of the right chest; scapula projecting. Resonance better to the base of the lung. Respiration heard all over chest, but obscure and occasionally with a click or rubbing sound. Bronchophony, which had been marked from the first at the right apex, was less. No râle there, even on coughing.

Nov. 12. To-day I saw this patient, he had been travelling and riding

on horseback, and using cod-liver oil during most of the summer. He had partially resumed business during the previous six weeks. He looked healthy; felt as well as he ever did in his life, except that he had dyspnœa on running up stairs, which subsided easily after rest. His digestion was better than for months before illness. He had no cough, nor any appearance of hectics. He had gained flesh. Once, he had an attack of asthmatic wheezing, a distinct paroxysm of asthma lasting about two days, during which, by the account of his physician, he had sonorous râles throughout the left or healthy lung. I ausculted him, and found some dulness on percussion of the lower half of the right back and under the axilla to nipple; less sound generally on that lung. Respiratory murmur almost null in the lower third, and obscure but healthy in upper parts. Voice scarcely heard at all in the lower third—not especially morbid anywhere. Left lung well. Patient regards the operation as the first step towards his present relief. He had been steadily growing worse until the puncture, and he has been as steadily, though slowly, growing better since. I presume that during life there will always remain some physical signs; for I presume that the lower part of the lung is in the condition described by Dr. Gairdner* of Edinburgh, as occurring after pleurisy, bronchitis, &c. The vesicles cannot and probably never will fully expand.

Case 15.—June 10th, 1853. Mrs. B——, I saw at E. Boston, with Dr. ——; æt. 45. She was the mother of a large family, which she had usually superintended until her illness; but she had been considered tuberculous, and for months had used cod-liver oil, under which, previously to her actual attack, she had been tolerably well. For three months before I saw her, she had felt not quite so well. Six weeks previously, she had had an acute pain in the right side; but it did not prevent her from going about the house. Three weeks before the operation, she went to church all day. While dressing for this purpose, she was surprised to find that her gown was too tight, and she had some dyspnœa. She, however, continued at work for a few days, when, owing to an increase of the symptoms, she was compelled to desist; she lost her appetite; the cough became dry and hard; the dyspnœa was extreme, so that at length she could not get up into her chamber, and fits of suffocation occurred, threatening death.

I found her with an anxious, very livid countenance, in bed, half erect, pulse 115. Respiration much labored. On percussion, the right side was flat everywhere, except at the apex behind. Respiration scarcely heard, even under the clavicle; bronchial for a small space along the vertebræ from top to bottom, absent elsewhere. Puerile through the whole of the left.

* British and Foreign Med. Chirurg. Rev., April 1853, Art. XI.

I punctured between the 8th and 9th ribs behind, and drew eighty-three and three-fourths ounces of yellow serum. The patient experienced the greatest possible relief, and suffered scarcely at all, except at the last of the operation she had some stricture across the chest and the cough was a little troublesome. The sounds on percussion *instantly* became more clear, to the point of puncture. The bronchial respiration was replaced by the vesicular. Crackling was heard throughout the right breast, evidently from the expanding lung. The pulse fell to 108, and she was able to lie on the left side, in a position which nearly suffocated her only twenty minutes before the operation. She was allowed broth and wine. During the next twenty-four hours, she coughed much and raised nearly a quart of frothy, white fluid.

I saw her, P. M., June 11, and found her quiet, with much more easy breathing; she was much less livid; she relished her broth and wine.

From this time, she steadily progressed, the lung expanded rapidly, as marked by râles that were heard everywhere in it. The little fluid that remained in the pleural cavity was soon absorbed; the urine was much increased. The œdema of the legs, that existed before the operation, was wholly gone by 20th (10 days after operation); the lividity of the skin had subsided. The appetite and digestive functions improved, and were excellent at the above date; no dyspnœa; pulse 84, quiet; little cough; only felt weak. On percussion (20th), 10th day from puncture, there was only a difference of pitch between the two sides—no real dulness. Vesicular murmur was heard in every part, only a little less at the right than at the left, with a dry crackle at the top on coughing.

Sept. 23. I found she had been going on well, though she was still feeble; scarcely any cough; digestion excellent; slight feeling as of pain or obstruction in the right side on full breath; was able to superintend her domestic affairs; she visited me at my office. On percussion, less sound at the *left* than the *right* top, and the voice was more resonant there; and I thought I heard, at times on coughing, a slight crackle there. Murmur obscure at the right apex. *Equal and clear in both lower lobes.* In other words, the signs were those of the chronic previous disease, the acute pleurisy having left little or no traces of its existence. Ordered to resume cod-liver oil.

This case I deem of especial importance:—1st. It indicates that a suspicion of tubercular disease of the lung must not prevent us from operating. This, with No. 7, proves the truth of this assertion. 2nd. I believe the operation saved human life. The patient was livid, and looked almost suffocating. Twenty minutes before the puncture she had, in fact, nearly expired. Twenty minutes after, she was like one restored to existence, and yet no operation of severity had been performed on her. 3d. The intensity of the cough was in exact proportion to the rapid unfolding

of the lung.* In 10 days, and probably before that, the lung was in contact, in every part, with the thoracic parietes. Surely, the operation did good service. Is there any possibility of a like result having occurred from the use of the common remedies? I think not.

Case 16.—Mr. H——, entered Mass. Gen. Hospital, May 28, 1853. Irishman, in U. S. 2 years. Sick three months only: he first noticed a cough, which came on after an exposure to wet and cold—no hæmoptysis. He was very ill at his entrance into the hospital, and continued to grow worse, with signs of disease in both cavities of the thorax. Flatness on percussion was observed in the lower part of both backs; the respiration was rude and bronchial at the left; mucous and sonorous râles everywhere. He was supposed to have pleurisy of both sides, and disease of the lungs, probably tuberculous. On 11th of July, the report by Dr. Storer was as follows: "Has been gradually failing during the last week; greater dyspnœa; at each visit bathed in cold sweat; countenance haggard, although he constantly reports himself as comfortable; pulse usually was 120." On this day I operated, at the request of Dr. Storer, between the 9th and 10th ribs, and drew off twenty-three ounces of highly-colored serum. On the subsequent day the record was—"Comfortable day and night; respiration less labored; pulse 110; countenance more tranquil." He continued improving until 17th, when the dyspnœa was augmented. He afterwards grew worse; and Aug. 5th, I punctured anew, and drew off thirteen ounces of colored serum. Little relief ensued, and he soon after left the hospital to die.

Reflections.—The peculiar nature of the fluid is the most interesting feature of this case. No. 3 presented the same fluid, and with similar result. I would draw the attention to the late date and the severity of the symptoms before the operation was allowed, but he obtained so much relief from the first operation that he gladly submitted to the second.

Case 17.—July 18, 1853. I operated on a young child, 6 or 7 years old, who had been operated upon several times by Dr. Wyman, of Cambridge, and who fell under my charge in the absence of Dr. W. in Europe. I removed twelve ounces of pus with ease, and with some relief to the patient. He has, however, died since.

Case 18.—July 18, 1853. Saw J. B——, with Dr. W——, of Jamaica Plains. Æt. 19. Clerk, from a city in one of the extreme Southern States.

* This fact fully sustains the view of Valleix, and as certainly is opposed to that held by Barth, upon the cause of the cough after thoracentesis. See, in Appendix, the analysis of an article on thoracentesis recently (Oct. 1853) published in the *Archives Générales de Médecine.*

It appeared that he had been ill from December, when he had "fever" and some cough, and obscure symptoms. From these he slowly recovered in two months, and resumed his work. He, however, was never wholly well, and in the spring he came north to recruit. At New York, he was seized with what was called "fever," and was ill a few days. Finally, four weeks before I saw him, he arrived at Roxbury. He was then not well, but he was able to walk about. On the evening of July 4th, he was exposed upon the Common, while viewing the fire-works. From that moment, he became rapidly worse, with debility, emaciation, total loss of appetite, febrile paroxysms every P.M., a very slight, scarcely noticeable cough; no expectoration; no evident dyspnœa, even on going up stairs. He could lie as well on one side as the other, and move rapidly from one to the other, without the least apparent difficulty of respiration.

At my visit, I found him a frail-looking youth, evidently much emaciated; he was reclining on a sofa, and without any marked symptom. His breathing, during conversation, was only a very little labored. His pulse, usually about 80, was rapid, apparently from emotion of mind. Only two days before, auscultation had been performed, and flatness of the whole of the right side of the chest, even to the apex, was found. There was bronchial respiration in the breast, and absence of murmur elsewhere. No ægophony. Fulness and want of motion of the intercostal spaces.

July 19th. I punctured in the usual spot. More than eighty ounces of yellow serum were drawn off, without the least trouble to patient. From this moment may be dated the commencement of the perfect cure of the disease from which he had suffered so many months.

On 20th I found him in every respect better—stronger, appetite better; less fever; sleep easier; respiration not heard outside of the axilla, but heard indistinctly along the vertebræ to the base of the back. Friction sound to 4th rib in front. Iodide of potassium internally, and iodine tincture externally, were used as in the previous cases.

26th. Murmur pure to nipple; obscure in the lower half, and generally in the back. All general symptoms better. Countenance much improved.

30th. He had ridden out freely, and had gained strength daily; had eaten full diet, and his digestion had been excellent; had gained flesh. Rubbing sound heard on the back, down to the point of puncture. Percussion equal in both backs, to the same point.

August 15. Fat and rosy, able to walk, ride, and eat as he pleases. He felt well, better than since his first attack in December. Murmur heard to the base of the right lung, without râle or friction sound. Percussion nearly like other side. Continue remedies.

Aug. 26. Saw him at my room. Weighed more than is usual, when

in health. All rational and physical signs improved. Only the slightest difference perceptible, on auscultation, between the two lungs.

Reflections.—Surely nothing can be more significant of cause and effect than the immediate commencement of recovery from long illness, after the operation. The record gives but a faint idea of the sudden, elastic bound with which every function of the body leaped into healthy action, the moment the incubus, which had been for months depressing them, was removed. On the following day the appetite was keen, the strength augmented; the urine, scanty before, flowed freely; the nights became easier; and the mental condition, as evinced by his countenance, showed that a great load had been removed.

The case is deeply interesting in other respects. The length of time it had continued latent was thoroughly peculiar. I do not believe, however, that he had had as much fluid as I removed, ever since his first attack in December, that is, for six months. Probably it had accumulated gradually at New Orleans, Staten Island, and Boston. I have never seen a case in which so much fluid existed with so little dyspnœa. A moment before the operation I made the patient turn rapidly from side to side on his couch, which he did without the least apparent dyspnœa. Not a single untoward symptom arose after the puncture, but everything tended towards restored health. On the 11th day he rode out, had gained flesh, &c. On 27th, he was, as he thought, in perfect health, and the respiratory murmur was heard to the base of the lung, while percussion gave almost equal results in both backs,—and this, too, after months of illness.

Case 19.—July 30, 1853. Mrs. L., I saw at Weymouth, in consultation. Æt. 20. Two years before, she had been married, and had been nursing till a few months previous to my visit. Her strength had been much prostrated. A cough, with pain in the right side of the chest, came on in February, but she thought little of it. The pain having subsided under a blister, she kept at her household employments, though not entirely well.—Gradually, however, the nursing and the local trouble overcame her, and she had been obliged to give up nursing, and to be confined to her house for three months, with evident disease of the same side. The debility had become greater, and she had taken to her bed. The symptoms were pains, never very severe, in the right side; no, or but very slight, expectoration, never hæmoptysis. Coughed less for two weeks before my visit than two weeks previous; but the cough was severe if she lay on her left side. Her appetite had been almost wholly gone for months. Urine normal in quantity and color. Occasionally, she had had a chill, but no marked hectics.

I found her lying in bed, emaciated to the last degree, and evidently approaching her end, unless some relief could be obtained. The right side

of the chest was dull to the 2d rib; flat from there downwards in front, and throughout the whole of the back; no motion of that side; general prominence of it. Obscure bronchial respiration was heard generally throughout the lung, with an indistinct broncho-ægophony; no râle, even on coughing. The other lung had puerile respiration throughout.

I advised an operation, as a means of temporary relief, at least. Accordingly, I punctured in the usual spot, and drew off ten ounces of yellow serum, which coagulated on standing. Suddenly, she complained of faintness and great stricture across the chest; she was paler, and evidently much distressed. On the removal of the canula, and putting her upon the bed, all unpleasant symptoms left her. No apparent change in the physical signs.

I advised a tonic course, and a repetition of the operation, if sufficient relief were obtained from that just finished. She passed a comfortable night, and afterwards she was able to lie with ease on her left side, which she had been unable to do for months before. The next day, by report of her physician, the dyspnœa was less. The fluid taken from the chest was nearly all coagulated.

In a few days the swelling of the legs, which had previously subsided after the operation, returned; and, with it, the cough became more urgent, attended with an increase of many of her other symptoms. The patient requested that I should be asked to operate again. Accordingly, on Aug. 3 (five days from her former operation), I examined her anew. The tubular respiration was extreme, and perfectly cavernous throughout the affected side. In truth, it was so marked that I should have hesitated upon the propriety of puncturing, for fear of piercing a solidified or excavated lung. The fact of having found fluid previously, induced me to puncture again. I did so, the patient being in a horizontal position. I could not remove but four ounces of fluid. Some air rushed into the cavity as I was probing the canula. No apparent effect, either then or subsequently, was produced thereby. The patient bore the operation well, fell into a quiet sleep afterwards, and her cough, from that time, ceased to be troublesome. No unpleasant effects followed the puncture; but the patient gradually grew feebler, and died Aug. 13, i. e. on the tenth day from the last operation.

Autopsy hurriedly made at 4, P. M., the same day. A quart of fluid was found in the right pleura, about a pint in the left. The left lung was free and healthy, except one small dot of tubercular disease. The right lung stood out from the vertebræ, solid and firm to the last degree. It was universally tuberculous. The upper lobe consisted of one large, solid, tubercular mass. The pleura was opaque with lymph, and at its upper part was adherent.

Remarks.—The strong cavernous or bronchial respiration, in connection with a fluid, and condensed lung, is an interesting fact, and corresponding

very exactly with observations recently made in Paris. In regard to the advantage of the operation in the case, I have merely to say, that if I were to have a similar case, I should advise the same course. The relief which the patient obtained after the first puncture, in being able to lie easily on the left side, and the total cessation of the severity of the cough, after the second; the fact that the patient begged to have a second operation, because of the relief afforded by the first,—all these convince me of the importance of the operation as a means of *relief*.

Case 20.—August 30, 1853.—Miss ———, of Maine, I saw in Boston. Æt. 23. She had never been very strong, but never seriously ill till present illness; always liable to cough on taking cold, *i.e.* when having coryza. In August, 1852, she had hoarseness, lasting for months and growing worse until December, at which time her strength was very much reduced and she had night sweats. She had slight cough ever after. Never pain in the chest; no tickling or trouble in the throat. Her expectoration had been, at times copious, frothy, and generally white; once she had hæmoptysis, perhaps an ounce, after walking. During February, she was quite ill, and went rarely out of the house. After the 1st of March, she began to ride, and improved rapidly. She also used the cold-water sheet daily. About the 1st of June, after "taking the sheet" more thoroughly than usual, she was seized with a chill and a fever, and a bad cough with great soreness of the chest and shoulder, and orthopnœa. As these symptoms subsided, the cough which she had had before subsided, and she again gained very rapidly. From this attack she had continued somewhat to improve under cod-liver oil, but the left side had always been a little more "sensitive" than the other.

I found her rather thin, but unusually bright and active. She had no apparent dyspnœa, save on exertion, especially after walking up stairs; then it was manifest, though she complained of it but little. She had no hard accesses of cough, but a frequent sense of irritation about the chest, provoking a cough. No expectoration; always some irregular action of the heart, with fluttering at the pit of the stomach, until within the three weeks previous to my seeing her. Tongue, clean; digestion, good. The urine, in June was, for two or three weeks, dark colored and small in quantity; of late, perfectly normal.

On percussion, less sound through the whole of left back than the right; quite flat towards the base. Line of dulness varied with change of posture. No râle, except perhaps, on coughing, at the top of the left lung and just below the angle of the scapula. The respiration was heard in the left breast, but below and under the axilla and in the back it was indistinct.

Ægophony in the lower half of the back. Left side more rounded than the right. The heart beat to the right of the sternum.

P.M. I punctured, and drew off eighteen ounces of a yellow serum, which was all that could be extracted, notwithstanding the patient was placed in various positions. She was nauseated, and vomited her dinner. There was little cough, and her pulse was small and regular, at 80. The heart fell somewhat towards its normal position. The patient stated that she felt as if she needed support, and as if she had "lost half of her side." Treatment as in previous cases, with nourishing diet.

August 31. (i.e. 24 hours after the operation),—could go up and down stairs with much less dyspnœa. The heart was no longer dislocated. There was crackling throughout the lung, even to the base. The night had been rather restless; she could not lie on the left side, owing to a pain in it when so doing; no fever or other trouble; her pulse was 92; she was sitting up and looking finely; her cough was more, but no expectoration.

From this time till September 10th (11 days after the operation), she continued improving. On that day, I noted as follows:—Much stronger; cough only of the most trivial character; some dyspnœa still (but less than before) on walking fast, &c., had walked, however, a mile or more without fatigue. Percussion gave *nearly equally good results in both backs;* but under the axilla and around to the front, near the cardiac region, it was dull. The respiratory murmur was heard throughout the left back, but where there was dulness on percussion the murmur was indistinct, with a crackling on full breath.

September 21. No cough or scarcely any for the past week. Her strength was less and her appetite was not quite so good; some dyspnœa on exertion, but she would be disposed to exert herself much more than her friends deemed prudent. She soon after returned home. I advised her to use the cod-liver oil, and to ride out daily.

October 30. I learned by letter as follows:—"I have been very well since I left Boston, I have had no cough or cold, I am, however, slightly hoarse most of the day." She states, that some dyspnœa remains on walking fast. She had gained a great deal of flesh and strength, so that she could endure much fatigue. I learned from a friend, that our patient seemed to those about her, nearly if not quite well. From the physician in attendance, it appears that the dyspnœa of late has been augmenting.

Remarks.—I regard this case as one probably tuberculous. The attack of pleurisy for which I operated came on in June, the patient having had cough for months before. Phthisis, I think, will probably be the result, but the pleuritic effusion was relieved, as in cases 7 and 15, as evinced by the lung expanding immediately. If the effusion should return, I see no objection to a repetition of the puncture. The chief points of

interest however, are the immediate expansion of the lungs and the sudden improvement in the health, even if it be destined eventually to fail.

Case 21.—Aug. 18, 1853, Mr. ——, æt. 42, generally in active business; and for a time before being taken ill he had been very much occupied, and had been perhaps less strong than usual; for many years he had had some trouble in the right knee; three weeks before he called on me, a cough had commenced which had continued; expectoration slight, in the morning, white; two or three times he had been awakened by pain in his right side; on arising he had at times some dyspnœa, but generally he had attended to his business with comparative ease, although satisfied that he was not wholly well; he was able to lie on either side; he could go up stairs without much dyspnœa; digestion perfect; appetite excellent; some loss of flesh; he had consulted one or two physicians, who had advised trifling external applications which gave no relief; no one had auscultated him.

When he called on me, his countenance was not unhealthy, although his face was rather thin; he walked readily to my room, and seemed to have no dyspnœa; his pulse was 80, and regular; his skin was normal; his tongue was clean. The rational signs denoted nothing of importance; no hereditary predisposition to pulmonary disease. On percussion, there was flatness in the lower two inches of the right back, dulness varying with change of posture. Murmur heard to the bottom, but less than at the other side; no ægophony. Iodide Potassium gr.ii., three times daily, and Tinct. Iodine externally. He was told to use a chiefly vegetable diet, and avoid all undue exposure and over-exertion.

Aug. 20. Less cough, and less oppression; no pain in the right side for three days, though occasionally he had some in the left breast. No fever; and he looked wholly well. On percussion, less dulness at the right back; rubbing sound in *left* breast, and a fine crepitation along cartilages of *left* ribs. Iodine had produced a full effect. Apply it to both breasts.

Sept. 2. General aspect and symptoms same, but the physical signs prove an increased effusion; more dulness, with ægophony, in the right; crepitus less at the left.

Sept. 7. Finding still an increase of the effusion, so as to affect the lower half of the right chest, and that the patient was evidently losing ground, having less strength and much dyspnœa on exertion, I suggested an operation.

This was attempted on the 7th, but, owing to an imperfection of the instrument, no fluid could be drawn out. The patient suffered only momentarily from the puncture. On 8th, I drew off fifty-four ounces of yellow serum, rapidly coagulating. The patient was a little faint after it. Crackling appeared in the compressed lung. In a few minutes after the opera-

tion he felt as he "did before his illness;" that is, all sense of oppression was gone. One half an hour after the operation, the urine, having been dark and small from the first of his illness, suddenly increased to double the usual quantity, and became thin and pale. Pulse 92, a little hard. Ordered to keep quiet, and take bread and tea for food.

Sept. 10. Abed from weakness, but nights much easier; no dyspnœa; little or no cough. By auscultation it appeared that the lungs had expanded to a level with the point of puncture. Dulness on percussion, and ægophony below, but less marked. Resumed Tincture of Iodine externally. From this time the steady improvement continued.

Sept. 12. (Fourth day after the puncture). There was crackling to the base of the lungs, and the ægophony was nearly gone. Pulse 80. Tongue and digestion excellent. Strength improving. Ale at dinner.

Sept. 14. (6th day from operation). No cough, fever, or dyspnœa. Only trouble was weakness. Urine natural the last few days. On full breath, a fine, crepitous râle to the point of puncture. Voice only a little modified. May have pigeon for dinner, and half a pint of ale.

Sept. 28th. (20th day after the operation). Had been gaining finely. Able to ride and walk out, and to eat and drink with relish. Countenance ruddy. Percussion still slightly dull at the lowest part of the back, but the respiration was heard everywhere without râle or ægophony. The murmur was not, however, free except on forced breath, indicating that the lungs did not even then expand with perfect freedom.

Oct. 6. Percussion equal in both backs, and respiration everywhere pure. By advice, he this day went into the country, and on 12th (that is just thirty days after the operation), at his return, he looked and felt better than he had been for many months. No cough or unpleasant symptoms, only slight dyspnœa on active motion. Physical signs—difference of pitch only, no real dulness. Voice well. A slight râle only, on full breath at the bottom of the lungs.

Allowed to go to his business, and has continued perfectly well up to the present date (Nov. 14).

Remarks.—The somewhat latent character of the disease in this case and the sudden relief, are as remarkable as in some of the cases previously detailed. The dyspnœa on the day before the operation had become very great, the nights were very restless, and the patient's whole aspect was that of a man suffering from severe disease, which, in spite of remedies, was progressing steadily. An operation was performed, and instantly a change took place. He felt as he did before illness; his dyspnœa left him; he slept tranquilly at night; his appetite improved, and all the functions of the body went on healthily. On the fourth day, the compressed lung had expanded, and on 20th day from the operation, the respiration was heard everywhere,

and the patient was able to ride, walk, and eat, like a man in health. Would he have progressed so rapidly if the operation had not been performed? Did it not only relieve, but likewise act as the great means of cure? The patient dates from it, the commencement of his cure: I believe him to be right in that opinion.

Case 22.—September 28, 1853.—Mr. ———, lawyer, I saw in Boston. He called at my office. His history was as follows:—Never very strong, but never any severe diseases till the present. This began last March, with some trivial pain in the left side, and cough, with little expectoration. He was believed to have slight pleurisy. The cough decreased much in May and June. Afterwards, all the symptoms had gradually augmented, but he had travelled much and had been able to walk freely, though easily put out of breath within the few weeks previous to calling at my office. He had experienced some difficulty of lying on his left side, and his cough had been more urgent, and within a week, it had been attended by retching and vomiting. His appetite had lessened, and he had been oppressed by food, with a slight tendency to diarrhœa for three or four months. Urine small, normal in color. Debility, emaciation; chills occasionally, and in the summer he had some sweats, none of late. At the visit, he appeared thin, and evidently suffering from long disease, considerable panting while speaking. Pulse 112. The cough, on that morning, had lasted for about three minutes, and had been quite harrassing. The respiratory murmur, was less, front and back, at the left than at the right side, somewhat obscure likewise at the top of the right. No râle anywhere. Flatness, changing with change of posture, and ægophony over the lower half of the back. Heart to the right of the sternum. He had had very little medical treatment.

I decided immediately, that the *first* thing to be done was to remove the collected fluid; accordingly, October 2d, I punctured in the usual spot, and drew off seventy six ounces of yellow, coagulable serum. The heart fell back at least 1½ inches towards its normal position. The murmur was heard more distinctly front and back. The percussion was less dull. Ordered to keep quiet, to take light food, Iodide of Potassium grs.ii. three times daily, and to use Tincture of Iodine externally.

From the time of the operation there was a steady improvement, though slow. On 5th, he reported no dyspnœa, and that the cough was very much relieved. Pulse 84, softer and fuller. Urine a little increased, and lighter colored. On 7th (5th day after the puncture), looked much better; wanted to eat more and to go out. He had sweats at night. Murmur heard to the base, and fine taffeta crumpling on full breath. Resonance of voice, which had been very marked before the operation along the vertebræ,

was much less. No ægophony. Heart in *normal position.* Walk out carefully; eat simple meats, half glass of ale at dinner.

October 22 (20 days after operation). Had sweated less. Able to walk two or three miles daily; felt he was gradually improving. Right side of the chest three-quarters of an inch *larger than the affected one.* Still quite dull tone on back. On full breath, lung seemed to expand with crumpling.

October 29 (27th day). Percussion almost equal in backs. Respiration heard indistinctly, but unequivocally, everywhere. General symptoms also much better; cough very slight; no sweating and countenance improving daily.

November 5 (34th day). His report was,—Had gained strength; cough, very little; no hectics; appetite and digestion perfect; on percussion, nowhere really dull, but least clear outside and under axilla; respiration very obscure there; resonance of the voice less, behind.

This gentleman is still under treatment, and daily improving. He attends now (Nov. 14) moderately to business. Whether the lung will ever come fully up, so that the murmur will be heard in both equally well, is a question I cannot answer,—time must decide. But as to the utility of the operation, no one can doubt. Look at the facts:—A pleurisy had existed, with a gradually augmenting effusion and increasing disturbance of the general system, from March till October 2. Then an operation was done. Immediately, a change took place. The dislocated heart resumed its natural position, and the circulation went on well. The lung, that for months has been compressed, expanded; the dyspnœa subsided. The digestive functions were restored. The hectics left; and all these events took place within a month! Surely, no one can doubt,—*first*, that the operation was the primary cause of the cure; *second*, that without it he would probably have gradually grown worse, and would have been an invalid for months. Possibly, after months, a fistulous opening might have formed.

Case 24.—October 14, 1853. E. C——. Æt. 40. Irish laborer. Always strong, but in former days had very freely indulged all his appetites. His disease commenced about the first of January, 1853, after a long exposure, during more than twenty-four hours, while endeavoring to restore to its proper place a locomotive that had run off the track. In addition to an exposure to a violent snow storm, he had had very hard labor. He felt at the time, that he had taken "a bad cold." Very soon afterwards, a cough began, slight and dry at first, with "stitches" in the right side. Once he had raised a tea-spoonful of blood, as he believed, from his throat. He did not work for three months. Finally, he undertook again to do so,

although the cough continued, and he knew that he was weak and by no means well. He was frequently disposed to vomit. This stomachic difficulty was much more troublesome than the pulmonary ones.

He continued vomiting more or less daily until July 19, when he had an access of it more serious than any of its predecessors. He was obliged to cease working from that time; and although able to go about the house and was often out of doors, he had been a permanent invalid till the period of his visit to me. In order to do this, he had walked upwards of two miles and a half, and without much difficulty. I learned that the vomiting ceased three months before; his cough had been less severe, but it was at times very harrassing; his appetite was very poor; he could not bear meat or liquors, because of the increase of the cough; his alvine discharges had been regular till a few days before his visit, since then he had been costive. He had had hectic paroxysms, but less for a period previously to my seeing him. Eight or nine weeks before that, he accidentally observed, on moving in his chair, that there was a "swashing" in his chest. This phenomenon had continued on every rapid change of posture. He had no pain or other serious symptom in connection with it. His aspect, at his first visit, was that of a man not very ill, but evidently suffering with dyspnœa, as evinced by his short, panting breath, his lividity, &c. Pulse 92, regular. Could not lie on right side because of cough, which last was least when he was quiet. *Swashing* heard at a distance from the patient; intercostal fluctuation perceptible to the hand placed on the side. Tongue, with a thin moist coat; appetite, very poor; costive; urine heavy, dark, smelling strong, and of the usual quantity.

Inspection.—Left chest bulged generally; no local prominence; by measurement ¾ inch larger than the right. Respiration wholly absent at the left; puerile at the right. On percussion, resonant in front; but it became totally flat when patient leaned forward to the horizontal position. Behind, flat in the lower half. Voice scarcely heard at the left; no ægophony. Natural at the right. A slight metallic echo (on speaking) in the left breast from under clavicle.

Advised to enter hospital, and to have a puncture made. The patient had, as already stated, observed the existence of fluid, and had asked the attending physician to "open his chest;" which the gentleman declined to do, on the ground (and a true one too, so far as it relates to the *opinion* of the profession), that the medical profession did not allow such a course to be proper or prudent treatment. October 21.—I punctured his chest at the hospital, where he was subsequently treated by my colleague Dr. Storer, until Nov. 1st, when I took charge of the wards. I drew off with the greatest ease, sixty-four ounces of pure pus. Considerable cough occurred during the operation, and one or two bloody sputa were raised; but otherwise he felt

quite comfortable; he was bright in his mind, and was much relieved of "weight." Pulse 96. The lung, however, did not seem disposed to expand, but air appeared to take the place of the fluid, and the metallic tinkling was heard throughout the left chest. Slight hæmorrhage from the puncture; stopped by a little lint and adhesive plaster. A bandage was applied to the chest to relieve the sense of vacancy.

This case is still (Nov. 10) under treatment. He has slowly, but steadily, improved in his general symptoms. He eats the house diet with relish. He has no fever paroxysm, and has more strength than for months past. The lung seems very slowly expanding. The "*swashing*" remains, but there is no return of the fluid. The left side isless than a quarter of an inch larger than the right; that is, it is half an inch smaller since the operation. The heart is still dislocated, though less so than before the puncture. A good vesicular respiration is heard to the spine of the scapula. Below that, to the angle, it is less distinct; also, still less in front. Outside, it is not heard. No crackling anywhere. A metallic echo is perceptible, with each vocal resonance, under the clavicle and below, around to the angle of the scapula. Above, to the spine of the scapula, it is distant. At the very apex it is not heard. I believe that the lung lies in contact with the parietes at the apex, at a short distance from it, down the back, and that it has expanded a little generally.

The prognosis in this case is doubtful. Evidently, the rational signs have improved. The patient feels and looks better. He can lie on the right side, which he could not do. He eats meat now, which distressed him and increased his cough previously. The lung likewise has expanded slightly. From week to week it seems very slowly getting larger. I have determined that if the fluid returns again, I shall puncture and inject into the cavity Tinct. of Iodine, as recommended by Drs. Boinet* and Aran.† I see no objection to using such treatment, even where air alone exists; but I prefer to wait for the present, while the patient continues to improve.

Case 24.—This was a case attended by Dr. J. M. Warren, which he kindly allowed me to see. I saw him October 20, 1853. Æt. 21. A farmer. It appeared he had been ill with pleurisy since March. He had, however, been able to walk out of doors, from two weeks after his first attack. In June, he suddenly began to raise a large quantity of pus. This raising of pus and mucus daily, had continued up to the hour of my seeing him. It was then amounting to about a quart in the twenty-four hours. His pulse was quick, 118 to 120; he was emaciated, but still did not look exactly tuberculous. His appetite was good; his bowels were regular. No

* Archives Générales de Médecine.

† L'Union Medicale, August, 1853.

hectics. Gurgling was heard on succussion. The right side was larger than the left, but no part of it was pointing. There was total flatness on percussion, from the top to the base of the lung, front and back. Crackling at the top, but no tubular sound or extreme vocal resonance in front.

Dr. Warren punctured between the 8th and 9th ribs behind, and one pint and a half of pus was removed with ease. The patient felt relieved. Crackling was heard lower down, and the respiratory murmur was heard along the spine, slightly but unequivocally.

November 5. He visited Dr. W., in Boston, who found him much better, and the lung was expanded much more. I did not see him. He remains still under treatment. He came to Boston, thinking to be operated on again; but Dr. W. found such improvement in the rational and physical signs, that he forbore.

Ten days afterwards, November 15 (26 days from the first operation), I saw him again. He reported that for several days after the puncture, he had coughed scarcely at all, and had improved much in his general feeling; but within a week the cough had been as bad and the expectoration as copious. On percussion, there was some resonance to an inch above the angle of the scapula, and the respiration was heard there, but still much less throughout the side than on the other lung. Twelve ounces of pus were removed with much comfort, and the patient returned to the country.

Is not this a proper case for a permanent opening and for iodine injections? Air evidently gets into the pleura through the lungs, so that the objection of admitting the external air by a permanent opening is not valid. 2d.—The pus now accumulates, and has to be *coughed up*. Would it not be better to let it *run out?* Probably, the cough would be much lessened thereby.

[To be continued.]

PART II.—REVIEWS AND BIBLIOGRAPHY.

Diseases of the Lungs from Mechanical causes, and Inquiries into the condition of the Artisans exposed to the inhalation of dust. By G. CALVERT HOLLAND, Esq., M.D., *Physician extraordinary to the Sheffield General Infirmary; formerly President of the Hunterian and Royal Physical Societies, Edinburgh; and Bachelor of Letters of the University of Paris.* London. 8vo. pp. 100.

BY the collection and publication of the interesting statistics contained in this small work, Dr. Holland has not only made a valuable addition to medical science, but, by exciting attention to the evils he portrays, has contributed, we believe, to meliorate ultimately, the suffering condition of

that class of artisans, who constitute a large body of operatives, not only in Europe but in the United States.

Although the work is not a recent issue from the press, yet, as large numbers of artisans are constantly employed in the different manufactories of our own country, in the steel, iron, stone, marble, burr-mill-stone and other works, in which the respiration of the operatives is disturbed, and fatal disease in numerous instances induced, by the constant inhalation of gritty or metallic particles,—we have deemed it a matter of sufficient importance, by a reference to this work to call the attention of the profession and the public to the appalling evils arising from these occupations.

Of the great number of artisans employed in the extensive manufactories of Sheffield, one of the largest manufacturing towns of England, the grinders constitute much the most numerous class. Not less than three thousand persons are constantly occupied in grinding the various articles of cutlery, hardware, &c., of whom a very large proportion die early of thoracic disease. During a period of eleven years, Dr. Holland was attached as physician to the General Infirmary of Sheffield, and this position afforded the author an extensive opportunity for observing the nature and cause of this disorder.

The object of the present work, is to point out the exceedingly noxious influence exerted on the respiratory organs by the inhalation of floating particles of stone and metal; and to recommend those measures, both prophylactic and curative, that should be employed for those who may be subjected to these influences.

Grinding on an extensive scale, Dr. Holland states, is almost peculiar to Sheffield and its neighborhood. Their principal productions, cutlery and edge-tools, are all ground, either upon a dry or a wet stone. Many articles are ground upon both, on the dry first and on the wet one afterwards; but the injurious effects of the occupation belong particularly to dry grinding. Previous to the employment of steam as a propulsive power, all "grinding wheels" were situated on the rivers in the neighborhood of the town. The consequence was, that, whether the grinders were resident in the country or town, they had the advantage of an abundance of fresh air, and daily exercise. At that time dry grinding was almost unknown. Its introduction has been owing to the gradual diminution in the scale of wages; and it is now extensively employed, for the reason that the one process is much more expeditious than the other.

"The modern grinding wheels are built in the town, and are several stories in height, and no regard whatever has been given to the ventilation of them. Each room is occupied by eight or ten individuals, belonging to the different branches. In former times, the wheels were well ventilated by dilapidated roofs, shattered doors, and broken windows; but in the recent

structures, these natural means are carefully guarded against, so that the clouds of dust which rise from the stone envelope the grinder, and continue to play around his head. The respiration is continually disturbed by the inhalation of the numerous particles of floating stone and metal."—p. 3.

As might have been anticipated, pulmonary diseases have greatly increased in frequency among this class of artisans; and this change "is principally to be ascribed, to the general introduction of dry grinding, and the less ventilation secured by the expensive structures of modern times."—Dr. Holland found it very difficult to trace the first morbid effects arising from the constant breathing of an atmosphere surcharged with gritty and metallic particles. That portion of the mucous membrane of the air-passages against which the inhaled atmosphere first impinges, is primarily affected. Hence, irritation of the lining membrane of the throat, larynx, and trachea, inconsiderable at first, and only occasionally complained of, is the earliest inconvenience experienced. There is a cough present, and slight expectoration, the discharge being sometimes colored by the inhaled dust. As the appetite and digestive powers are in no degree affected, nor any of the functions of the system perceptibly disturbed, in the first stage of the disease, the above symptoms will, in some instances continue for several years without any serious aggravation. Ordinarily, however, unless the individual possesses, originally, a good constitution, the second stage early supervenes, in which the cough is more urgent and the difficulty of breathing is greatly increased; there is an expression of suffering and anxiety; the body is bent forward, and the slightest exertion induces dyspnœa, and aggravates the cough. Even in this stage of the disease, the appetite is generally good, and the process of emaciation is remarkably slow in many instances. The pulse is but slightly quickened, only averaging ordinarily, between seventy-five and eighty-five pulsations in the minute. The chest generally sounds well on percussion; but auscultation reveals puerile respiration in some parts of the lungs, increased bronchial in others, "conveying the impression that the respiration is principally carried on through enlarged bronchial ramifications." In the third and last stage, "the wretched victim is an object painful to contemplate." All the symptoms of the preceding stages are greatly aggravated. There is very copious expectoration, with extremely short and laborious respiration, "and the patient at length dies from long-continued suffering and exhaustion."

We shall pass over many of the author's views regarding the pathology of the disease, as well as his conclusions respecting the "modifications in the characters of phthisis from a difference in the circumstances in which it occurs." His are views and opinions that will not be sustained by the established pathological discoveries of the present day. The striking difference in the progress of the disease, observed by the author, in the two classes of persons who are the subjects of it, as well as the difference in the

physical signs manifested, and in the pathological changes, are points of much interest.

"In treating of the influence of gritty and metallic particles on the respiratory organs, there are two important structural changes to which they give rise,—to which no writer has ever alluded: *an enlargement of the bronchial tubes, and an expansion of the pulmonary tissue.* These are not invariable effects, but they are produced in an immense number of instances, as we shall subsequently endeavor to prove; and the production of them, though accompanied with serious symptoms, distressing cough, and difficulty of breathing, are, nevertheless, more favorable to the prolongation of life, than the absence of them, in the artisan suffering from other morbid conditions induced by the inhalation of such particles.

"The great mortality among grinders is from 21 to 35 years of age. The delicate in constitution and the wretched in circumstances, break up long before the latter period, of degeneration of the lungs, presenting the ordinary symptoms of tuberculous phthisis. With very limited exceptions, the few who live beyond 35 years of age—in the most deleterious branches of grinding—live in consequence of these structural changes; or, in language unexceptionable in this stage of the inquiry, they exhibit the symptoms by which they are characterized.

"When the constitution is vigorous, and the individual possesses a well-developed chest, the injurious influence of the dust is, to a great extent, confined to the production of bronchial irritation, at least for a considerable period, the result of which is a frequent and severe cough, existing for several years, unaccompanied with any morbid derangement of the animal economy. The pulse is slightly, if at all, accelerated; nor do we observe any fever or disturbance of the digestive powers. The continuance of the cough excites little anxiety in the artisan, interfering in no degree with his daily occupations. At length, however, he complains of difficulty of breathing, which is aggravated on every exertion, whether of walking or coughing; and then he is regarded, by himself and others, as attacked with asthma,—a term which is almost universally employed here to designate his symptoms. This form of disease is no *certain* protection against the inroads of further pulmonary degeneration, as tubercles, hepatization, or any other structural change. The enlargement of the bronchial tubes, on which it would appear chiefly, if not exclusively, to depend, affords nevertheless, to an important degree, such protection; and the longest-lived among the diseased grinders, by many years, are found in the asthmatic class."—pp. 12, 13.

That the presence of asthma, whether it be the ordinary form of the disease, or the "grinder's asthma," proves favorable to the prolongation of life, is a popular opinion, very generally entertained. This opinion is not altogether unfounded. This immunity afforded by asthma, is not so much the result of the disease, as it is dependent on the pathological change produced by the disease; namely—upon the *bronchial dilatations.* As the causes upon which bronchial dilatation depends, and the influence which this organic lesion exerts on the progress and development of tuberculosis, are not generally understood, we shall take occasion here to make some remarks on this most frequently-occurring alteration.

Dr. Holland supposes that the enlargement of the bronchial tubes and the expansion of the pulmonary tissue, observed in a large number of the cases that came under his observation, were induced by the violent, full, and long-continued inspirations and expirations occasioned by coughing.

"When ten times the amount of air, not only in individual acts but in a given time, enters the lungs, these organs are expanded in a correspondingly increased proportion. The air tubes and the cells, are under the necessity of doing ten times the amount of functional duty; and it is a law of the animal system, that the development or enlargement of an organic apparatus is according to the exercise of it." p. 37.

Most pathologists, since the time of Laennec, have attributed dilatation of the bronchi to the same mechanical cause. Before the discoveries of Laennec, this organic lesion had been entirely overlooked by physicians and anatomists. He observed and described, with much accuracy, this structural change; but he attributed the lesion to the mechanical pressure exerted on the tunics of the tube by voluminous sputa accumulated in the spot where they had been secreted under the impulse of an energetic cough. Andral, to some extent, adopts the views of Laennec; but with regard to some of the varieties of dilated bronchi, those which are attended with hypertrophy of the bronchial tunics, he is of the opinion that the augmentation of the diameter of the tubes must be explained in the same manner as the augmented thickness of the tissue, both being the result of a vital hypertrophy—not produced in the mechanical manner described by Laennec. Dr. Williams, more in accordance with the views of Laennec, declares that the "physical cause of dilatation of the bronchi, is to be found in the acts of respiration and cough, exerting a degree of pressure on the softened membrane greater than its elasticity can resist." * The theory first promulgated by Carrigan, to explain the cause of bronchial dilatation, and which has been adopted, with some limitations, by Rokitansky, and published in his late works, under the head of "Abnormal Conditions of the Air-Passages" † is a theory directly the opposite to that of Laennec. Carrigan regards the lesion as dependent, primarily, on a diseased condition of the parenchymatous portion of the lung itself,—a disease to which, from its being allied in its anatomical characters to *cirrhosis of the liver*, he has given the name of *cirrhosis of the lungs*. The destruction of the cellular spaces and the obliteration of the parenchyma of the lung, which is found in bronchial dilatation, Carrigan asserts, is the *primary* disease, occurring spontaneously;

* Cyclopedia of Pract. Med., Vol. I. Art., Bronchitis.

† A Manual of Pathological Anatomy. By Carl Rokitansky, M. D. Vol. IV. Sydenham Society Edition.

while the expansion of the bronchi is *consecutive*, and is the result, not only of a tendency to fill the space rendered vacant, and on the expansion occurring in the act of inspiration, but also on the traction exerted on the opposite walls of the bronchial tubes, by the shrinking of the surrounding tissue. This primary disease of the parenchyma is considered by Carrigan as an inflammation analogous to that of pneumonia, inasmuch as it extends itself insidiously from one lobule to another, and deposits a product which becomes indurated and fused, or blended as it were, with the original tissue, thus obliterating and destroying the air-cells.

The views of Rokitansky in regard to the primary changes in dilatation of the bronchi, differ somewhat from those entertained by Carrigan.—"Whichever be the form under which bronchial dilatation appears," says this great pathologist, "*bronchitis* must be regarded as the most frequent primary cause. It acts in different ways, but not mechanically from accumulation of mucus according to the theory of Laennec."—vol. iv. p. 9.

There are two principal forms of bronchial dilatation described by Rokitansky, which are "remarkable for the frequency with which they occur, and for the degree of development which they attain. They constitute one of the most important diseases of the air passages."

In the first variety, in which a bronchial tube is *uniformly dilated*, there is present atony and paralysis of the contractile and irritable elements of the tube, dependent, according to Rokitansky, on a chronic form of bronchial inflammation, in which many of the smaller tubes become completely obstructed by a blennorrhœal secretion. Under these circumstances their walls, through the influence of the inspirations and the concussion induced by the paroxysms of cough, undergo rapid and frequently extensive dilatation. This form of bronchial dilatation affects that portion of the bronchial system in which catarrh occurs. The second variety is denominated the *saccular* form of bronchial dilatation. It, on the other hand, is not developed in that part of the bronchi which is the seat of catarrh, but occurs in their terminal branches, and is the consequence of bronchitis arising in these portions of the bronchi. As the result of this inflammation, tumefaction of the mucous membrane takes place, the secretions are accumulated in the final ramifications; and these, at length, become completely obliterated. The obstruction thus presented to the free ingress of the inspired air, is attended with difficult and prolonged inspirations, thereby occasioning saccular dilatations in those portions of the bronchial tubes which are perfectly impermeable. It is the opinion of Rokitansky "that the parenchyma surrounding this portion of the bronchial system collapses, and thus produces a space which becomes filled by the dilating bronchus." In those cases where the disease is extensive, where the bronchial tubes of one lung are more or less dilated, the parenchyma becomes shrivelled and obliterated, the volume of

the lung is contracted, and there occurs a sinking of the walls of the thorax over the pulmonary tissue which surrounds the dilated bronchial tubes. In some instances these saccular dilatations become isolated, are partially filled with pus, and they are then quite likely to be mistaken for *tuberculous cavities.* It is under these circumstances, when a large portion of the lung becomes obliterated in consequence of extensive bronchial dilatation, that the condition to which Dr. Holland alludes, namely, "an expansion of the pulmonary tissue," occurs. But this increased development takes place in the otherwise normal and permeable portions of the lungs.

On this subject, and in reference to the immunity from pulmonary consumption afforded by extensive bronchial dilatation, Rokitansky remarks—

"In consequence of the obliteration of a large extent of lung, produced by extensive bronchial dilatation, we find that this affection gives rise to a development of the right side of the heart in the form of active dilatation, stasis, and dilatation of the whole venous system, cyanosis, and vicarious development of the permeable portions of the lungs, which not unfrequently lead to bronchial and pulmonary hæmorrhage (hæmoptoic infarctus). If the bronchial dilatation be very highly developed, it induces collapse, emaciation, a cachectic appearance, dropsy, and finally total exhaustion.

In consequence of the venosity and cyanosis to which it gives rise, it affords a very striking immunity, not only from pulmonary tubercles, but from tuberculosis in general. The fact that bronchial dilatation exerts an excluding influence on pulmonary tuberculosis has been known since the time of Laennec; and although the reasons for this influence are not understood, it has served, in recent times, as the basis of several plans for the cure of pulmonary consumption."

But to return to our author. Dr. Holland found that to whatever kind of dust the artisan was exposed in grinding, whether it was composed of stone or metal, the disease which it induced primarily in the larynx and trachea, was invariably extended, if the cause was continued, "to the principal divisions of the bronchi, and ultimately to their numerous ramifications."—Through the whole extent of the larynx, trachea, and bronchial divisions, their lining membrane was found thickened and often excessively pale. The structural changes in the mucous membrane of the bronchi, and of their ramifications, are frequently much greater than in the membrane of the larynx and trachea. Beside the above changes, discovered after death, in those who died of the phthisis of grinders, the author mentions—1. Adhesions between the lungs and the pleura costalis. These were generally found to be quite firm and extensive. 2. Extensive enlargement of the bronchial glands, or rather their conversion, immediately at the bifurcation of the trachea, "into a black, hard, gritty substance, varying in size from half a marble to a large hazel-nut." 3. Similar substances and analogous in composition, but smaller in size, were found in several cases, in almost every part of the lungs. These were detected, says Dr. Holland "in portions of

these organs which exhibited every degree of disorganization, from the first questionable change of structure to the formation of softened tuberculous masses." 4. The engorgement of the lungs, or certain portions of them, with a black or dark fluid.

In the treatment of the disease, Dr. Holland does not propose the adoption of any measures new or peculiar. When the symptoms were urgent, such as cough or difficulty of breathing, the greatest benefit was observed from the application of leeches, followed occasionally by blisters. As internal remedies, those which proved the most serviceable were emetics, expectorants, alteratives, and tonics. In those cases where a distressing cough and copious expectoration were present, the author found emetics often of very great advantage. "They relieved the cough and difficulty of breathing, and diminished the expectoration very much in amount."

The attention of the author, and of other benevolent individuals, was early directed to the pernicious influence exerted upon the health of the thousands of artisans, who, in their town, pursued the grinder's occupation; and many attempts were made to devise some method to mitigate the evils under which they labored. The result of these efforts was the invention of a magnetic guard, or mouthpiece, consisting of an arrangement of a series of magnets about the mouth, which served to attract the metallic particles evolved in the process of grinding. This ingenious contrivance effected the desired object only to a limited extent. The dust to which the artisan is exposed, consists of gritty as well as metallic particles—both equally injurious, and the latter only were arrested by the magnetic mouthpiece. This apparatus was never generally adopted. A plan was at length suggested, which Dr. Holland avers, is "not less simple than efficient." It is thus described by the author:

"A wooden funnel, from ten to twelve inches square, is placed a little above the surface of the revolving stone, on the side the farthest from the grinder, and this funnel terminates in a channel immediately under the surface of the floor; *or we may consider the channel simply as the continuation of the funnel*, in order to avoid any confusion in the explanation. The channel varies in length, according to the situation of the grinder in reference to the point where it is most convenient to get quit of the dust. If we suppose that eight or ten grinders work in the same room, each has his own funnel and channel, *and they all terminate in one common channel, the capacity of which is perhaps twice or three times as great as each of the subordinate or branch channels.* The point where they terminate is always close to an external wall. At this point, within the general channel, a fan is placed, somewhat in form like that used in winnowing corn, and to this is attached a strap, which passes upwards and over a pulley, so that whatever puts the pulley in motion causes the fan also to revolve. The pulley is placed in connection with the machinery which turns the stone, so that whenever the grinder adjusts his machinery to work, he necessarily sets the pulley and

the fan in motion. The fan, acting at this point, whatever may be the length of any of the subordinate channels, causes a strong current to flow from the mouth of each funnel, which carries along with it all the gritty and metallic particles evolved, leaving the room in which the operations are pursued free from any perceptible dust. When the whole apparatus is perfect and in excellent condition, the atmosphere of the place is almost as healthy as that of a drawing-room."

In the last chapter of this work the author has given a very full statistical account of the different rates of mortality occurring among the workmen employed in the several branches of grinding, and the influence of these occupations on the moral character and social position of the artisans. With regard to the latter points, the investigations which were undertaken and the facts obtained proved conclusively, that the more destructive the branch, the more ignorant, reckless, and dissipated are the workmen.

Although grinding, in all its branches, exerts a most pernicious influence on the health of the different artisans, yet all branches are not equally deleterious. In his investigations into the injurious nature of these different occupations, the author includes the scissors-grinders, fork-grinders, needle-grinders, razor-grinders, penknife-grinders, tableknife-grinders, saw-grinders, file-grinders, and scythe-grinders.

The ages of the workmen in any of these branches of the trade, served as a general indication of the healthy or prejudicial nature of the occupation. Thus, of 213 adult workmen employed as scissors-grinders, 161 of the number were under 40 years of age; and this is an evidence of the destructive tendency of this branch of grinding. But the greatest fatality appears to be among the fork-grinders. Such is the destructive tendency of this branch, that grinders of other departments frequently refuse to work in the same rooms, and the sick clubs of the town have a special rule against the admission of persons of this occupation.

Dr. Holland has given the following statistics of this branch:

Men employed,				97
Boys,				100
The number of men from 21 to 25 years of age,				28
do.	do.	do. 20 " 30	do.	28
do.	do.	do. 31 " 35	do.	8
do.	do.	do. 35 " 39	do.	14
do.	do.	do. 40 and upwards,		19
				97
The number of boys from 10 to 14 years of age,				39
do.	do.	do. 15 " 19	do.	51
do.	do.	at 20	do.	10
				100

Only 3 individuals, of the 19 men above 40 years of age, lived to be 50 years old. Of this number, ten either commenced this occupation late in life, or had passed several years in the army. Deducting, therefore, these ten from 97, there remained 56 under 30 years of age, eight from 30 to 35, fourteen from 35 to 40, nine above 40 and under 50; and in the class from 35 to 40 there are some who had not worked regularly at the trade from youth. Under 30 years there were 56, and only eight from 30 to 35. It is therefore manifest that the greater portion of the 56 must have died under 30 years of age!

The following table is given by Dr. Holland to exhibit "the awful destruction of human life in this particular branch."

Comparison of Deaths at particular ages, out of 1,000 deaths of persons above 20 years of age—in England and Wales, in Sheffield generally, and of the Fork-Grinders particularly.

Ages.	England and Wales.	Sheffield.	Fork Grinders.
20 to 29,	160	184	475
30 " 39,	136	164	410
40 " 49,	126	158	115
50 " 59,	127	155	0
20 " 60,	549	661	1000

"Thus, out of 1,000 deaths of persons above 20 years of age, the proportion between 20 and 30 in England and Wales, is 160; in Sheffield, 184; but amongst the fork-grinders, the proportion is the appalling number, 475; so that between these two periods, three in this trade die to one in the kingdom generally.

Between the ages of 30 and 40, a still greater disparity presents itself. In the kingdom, 136 only in the 1,000 die; in Sheffield, 164; but in the fork-grinding branch 410; so that between 20 and 40 years of age, in this trade, 885 perish out of the 1,000; while in the kingdom at large, only 296. Another step in the analysis, and we perceive that between 40 and 50, in the kingdom 126 die, in this town 158, and in this branch 115, which completes the 1,000. *They are all killed off.*"

The occupation of the needle-grinder appears to be equally destructive to life with that of the fork-grinder. In his examinations into the influence of this branch, the author's field for observation and analysis was quite limited, inasmuch as the number employed are small; for a single individual is able to grind an immense quantity of needles. The dust evolved in needle-grinding, combines a much larger amount of steel than is formed by any other kind of grinding. A regulation has always existed in the needle-manufactories, which alone is evidence of the greatly destructive influence of this occupation; the time for working is limited to six hours per day. Notwithstanding this regulation, and the fact also that the operatives employed as needle-grinders were vigorous young men, from 17 to 20 years of

age, when they entered upon their occupation, yet the investigations proved, that a majority of the workmen were destroyed before 30 years of age.

The analysis of this interesting work of Dr. Holland, and the statistical facts which we have presented, are sufficient to call attention to this important subject. Still farther observations on the influence of mechanical causes in the production of thoracic disease, in our own country, are much needed; and we earnestly hope that practitioners residing near large manufactories, where the operatives are exposed, in their occupations, to the constant inhalation of an atmosphere charged either with gritty or metallic particles, will aid, so far as may be in their power to do it, in collecting and recording observations on this hitherto much-neglected cause of disease.

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Memoirs of JOHN ABERNETHY, *by* GEORGE MACILWAIN, F. R. C. S. New York, Harper & Brothers, 1853.

This book has a very inappropriate motto,—"The evil that men do lives after them; the good is often interred with their bones." If *John Abernethy* did any evil in his day—which lasted from April 3d, 1764, till April 20th, 1831—it is dead now. The good he did was never interred with his bones. The specific gravity of such services to science would never allow them to remain beneath the surface. The book is a good one, though not near as good as it should have been. It is gossiping, sprightly, and interesting of course; but there is too much wandering from the subject,—too many discussions of morals, which *Abernethy's* life only suggests. Still, we are thankful for every new thing told us of so good a man.

He was one of those whom his compeers recognized as a wit; his humor pervaded all he said; while his manners among his patients were so rough, that he has been esteemed the prince of bullies in the sick-room. Of such a man, it would naturally be expected that a thousand stories would be told for which there was very little foundation in fact. All the witty sayings and the rude speeches handed down by the story-tellers, of which the authors were forgotten, would naturally be imputed to one of whom they might so well have been true. The book has an interest for those who are outside, quite as strong as for those that are within the profession. It is through such eccentric members that the world becomes acquainted with a profession.

Abernethy was descended from a family of clergymen: he was "a sharp boy," was apprenticed to Sir Charles Blicke at fifteen, was a good student, attended the lectures of Sir William Blizzard and Mr. Pott, was elected assistant surgeon of St. Bartholomew's Hospital when twenty-three years old, and remained, without promotion, at that post for twenty-eight years. At the same time he commenced his lectures, to which he gave the better

portion of his life. He was married at 36, after a very brief and business-like courtship, and did not miss of his lecture on the same day. From the first, he was very industrious; and "after the public once got hold of him," his practice was larger than he could well attend to. His contributions to the medical journals of his day added much to his reputation. These, together with his Physiological Essays, his Surgical Cases, and his book on the Constitutional Origin of Local Diseases, or his "My Book," as it was popularly known, formed the basis of his reputation as an author. That he is responsible for a thousand unnecessary purgings, no one doubts. "My Book" made physicking fashionable. It was the easiest thing in the world for the puzzled practitioner to trace through the ever-ready nervous system all unpleasant symptoms to the stomach, and then to attack them with blue pill and senna tea. Great was the pity that patients would not always recover on such treatment. It was a wonderful simplification of our science; and there are yet to be found in the country enthusiastic practitioners who would feel at a loss for tools to work with, though in a drug-shop, if their blue pill, senna tea, and "Abernethy's bitters" were missing.

That famous "seventy-second page" of "My Book" became the whole creed of one class of medical men; and so infinite mischief resulted to the invalid world. But the doctrine of the sympathy of the whole system with every part,—that local disease may affect the whole system, and, conversely, that disturbance of the whole system may affect each or any part,—was first made familiar and popularized to the profession through *John Abernethy*. All honor to the noble hobby-rider for that. He was a model lecturer, a forcible writer, and, errors excepted, a right good man. He hated humbugs. He so thoroughly despised affectation and flattery, that in his manners he was very much of a bear. To the rich and the great he was most unpardonably rude; to the poor, especially to his hospital patients, though still rough, he was the soul of kindness. He always drank the best port, and suffered sadly at the last from rheumatism, which he would have told a patient was the natural consequence. He was the interpreter to the profession of John Hunter's doctrines and his great labors. When Mr. Lawrence attacked him and his exposition of Hunter's doctrine of life, Abernethy, without a doubt, did not fail to give him back as good as he sent. Dr. Macilwain is sadly wrong, we think, in "forbearing quotations" enough to inform us as to the merits of this interesting controversy. He retired from each position that he ever held in life, with honor. Kept for a great part of his life in positions subordinate to his inferiors, he carried more honor to than he bore away from any office he ever held. His wit stayed by him to the last. By his own request his body was not examined after death. Fortunately, no such prohibition was extended to his works: they continue to be examined daily.

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Hufeland's Art of Prolonging Life. Edited by ERASMUS WILSON, F.R.S. Boston: Ticknor, Reed, and Fields. 1854.

The great desire of the present generation is, to carry up the continuance of human life to the maximum extent that is consistent with the highest daily enjoyment of it. They want the draught of life sweetened to the palate, and its cup full. If too bitter, the increase of suicides shows that it is spurned. If too much diluted, it is no less distasteful to the majority. The book that lucidly and truly sets down how a happy life may be prolonged, should be a popular book. And this the work of Hufeland does in very agreeable style. Its author, *Christopher William Hufeland*, was both an eminent physician and a Prussian counsellor of state,—born in 1762,—first practised at Weimar,—was made professor at Jena in 1793,—was appointed physician to the king in 1801,—wrote an excellent "System of Medicine,"—died in 1836, at what may be called a respectable age for one who presumed to teach how age could be reached, and his works do follow him. The book is an old one, of course; in other words, those who study it drink directly from a fountain. The most sensitive cannot detect in it the slightest leaden taste that knowledge is apt to acquire in coming through the leaden pipes of modern compilation. In matters that concern longevity, our fathers knew about as much as we do; at any rate we, through the smoke of our daily battle of life, cannot see as clearly distant foes as those who are stationed on hill-tops, above the reach of the thick air,—whether they be the great men of the past or of posterity.

The book is in two parts. The first deals with the curiosities of the "Macrobiotic Art," of its state among the ancients, of it as connected with astrology, transfusion, and extremes of regimen; of the nature of the vital power in man, in animals, and in plants; of the longevity of various ages; of the signs of long life, and of the world's desperate modes for securing it. The second part treats of the means that shorten, and those which lengthen life. The work is timely. Our youth are crowding on a great amount of steam, and travelling through the periods of individual life at prodigious speed. There is need of a deal of physical conservatism to prevent a most imprudent consumption of the aggregate of years to which our country and the world is entitled from this generation. A perusal of Hufeland's judicious maxims will tend to make us take matters more coolly, to eat more slowly, sleep better and longer, work to better advantage by learning to think before acting, lay together less kindling-wood for future repentance, and live to a better old age. ‡ ‡

PART III.—CHRONICLE OF MEDICAL PROGRESS.

ANATOMY, PHYSIOLOGY, AND GENERAL PATHOLOGY.

The Pacchionian Bodies.—The following is the result of Prof. Luschka's recent investigations in regard to these bodies:

They are really *normal*, and found in all persons at all ages; though supposed by Sœmmering to be granules of fat, and by Rokitansky and Hyrtl to be the products of inflammatory effusion.

Fig. 1.

Fig. 2.

Fig. 3.

They are found only near the mesial line, along the course of the longitudinal sinus; and are in all cases offsets from the arachnoid membrane, whether cerebral or parietal.

These offsets from the cerebral arachnoid are seen on tearing off portions of the arachnoid over the mesial edge of the hemisphere, appearing under a microscope as mere shaggy projections of its substance, of various form and sizes. Their number varies in different heads; they are generally smaller in the young subject, the size varying from that of a poppy seed to that of a millet seed. They are grey or whitish, and of a firm and fibrous structure; are covered with a scanty epithelium, and contain no vessels. These forms are represented by Figs. 1 and 2.

Those on the *parietal* arachnoid sometimes project through between the separated fibres of the dura mater into the diploe of the cranium even, or into the canal of the longitudinal sinus, or forwards upon the surface of the brain, so as to touch and interlace with the cerebral Pacchionian bodies just described. Sometimes this interlacement is so close, that both layers of the serous membrane are torn away in the attempt to separate them,—a result often incorrectly attributed to pathological adhesions. In this case they assume a complex form, as represented in Fig. 3.

Nothing positive as to their functions is known. They are found only on the human arachnoid, and may perhaps protect or strengthen the veins as they enter the longitudinal sinus.

The most striking *pathological* condition of these bodies is hypertrophy, chiefly met with in the aged, in which condition they may become so in-

creased in size, as seriously to obstruct the current of the circulation, by projecting into the longitudinal sinus. Pits are sometimes produced in the cranium in a similar manner; and sudden death has, not improbably, been sometimes produced by their downward pressure on the brain.—*Association Journal, from Muller's Archives*, 1852.

The Nun's Murmur. The "Vierteljahrschrift für die Praktische Heilkunde" for July 1853, contains an elaborate article by Prof. Hamernik, upon the peculiar venous murmur named as above. (Nonnengerauch).

Prof. H. first described this disease in 1847, having originally observed it in the internal jugular vein. He has since found it in the innominatæ, both of the venæ cavæ, the external iliac and the femoral. It may also exist in any case of abnormal communication of an artery with a vein. It is a vibration perceptible to the organs of hearing and touch, or the former alone; and which is produced by the agitation of the walls of the vein by its contents.

In the *internal jugular* veins the nun's murmur may be heard under two forms, frequently perceptible at the same time, viz., the "warbling," and the "singing" sound of Laënnec. The former, however, never occurs in any other vein than this, except in case of communication with an artery. The sense of touch can only detect the accompanying vibrations. Here also, the singing is always accompanied by the warbling sound; the latter may, however, be independent of the former. Both forms are modified by the respiratory movements being, not seldom, interrupted at the end of a deeper inspiration, and first reäppearing with the following one. When maintained continuously, it increases in strength at each inspiration correspondingly to the fulness of the latter. When all other circumstances are favorable for the production of this murmur, it still does not appear, unless the head is raised somewhat above the level of the thoracic cavity and the vein is rendered moderately tense by an inclination of it to one side.

In the venæ innominatæ and superior cava, this murmur is rare. It is audible on both sides of the sternum at its upper extremity, and upon the right side, even to the cartilage of the third rib. It is continuous, not modified by the respiratory movements, and has been heard only under the form of the singing sound.

Occurring in the inferior cava, the external iliac or the femoral vein the murmur in question is rendered audible, in the appropriate conditions, by the horizontal position of the trunk, and the extension of the limb to be examined. In the femoral, the accompanying vibration may be felt. In these three veins the murmur has been heard to present the singing sound alone; and is continuous, uniform in intensity, and unmodified by the movements of respiration.

Finally, in cases of abnormal communication of an artery with a vein, this murmur is often accompanied with tangible vibrations in the walls of the latter; a part of the momentum of the arterial column of blood being transferred to that of the vein. Here, also, the warbling sound may be heard.

The following is an abstract of Prof. H.'s theory of the nun's murmur:—

In the first place, it should be remarked that this murmur is observed

only in young persons who are both blanched in a notable degree, and at the same time only moderately emaciated; whose thoracic and abdominal organs possess a sufficient degree of elasticity; and whose cutaneous veins are remarkably small.

Now if, in these circumstances, this murmur occur in a vein above the diaphragm (the internal jugular, innominata, or superior cava), it will be found that the bilateral dimensions of the thorax are diminished, its intercostal spaces are depressed, and the arched surface of the diaphragm extends higher than usual, from a corresponding drawing in of the abdomen, and especially from an increase of the horizontal position of the heart—its stroke being over three inches to the left of the sternum, and showing an increased intensity and extent in the cardiac region. But, since all these changes of form and position are produced by an increased contractile power of the lungs, the latter must also modify the circumference of the circulatory organs within the thorax, and especially increase that of the vena cava superior, and the innominatæ, and the auricles of the heart. This increase will augment the velocity of the blood-current in the internal jugular vein, especially during an inspiration, since the cutaneous veins contain but little blood, as before stated; and thus the vibrations in the walls of the jugular, and the murmur will be produced. An increased expansion of the cava and innominatæ, together with an increased poverty of blood in the cutaneous veins may render the current in the internal jugular continuous; in which case the murmur is so, though it is increased in intensity at each inspiration proportionally to the volume of the latter. The fact that the murmur most frequently presents the warbling form in this vein (and which is heard in no other), is probably owing to the fact that the valve at its junction with the innominata (and which may be proved by experiment upon the cadaver, to be closed merely by a dependent position of the head alone), presents, even when open, a considerable narrowing against and an expansion above itself.

This murmur in the internal jugular is most common in young persons who suffer from chlorosis, or tuberculosis; because the preceding conditions are, in such, most frequently met with. Indeed, it is pretty certain that in tuberculous subjects generally, the elasticity of the lungs is increased, even though the tuberculous deposit is in some other organ. This elasticity, on the other hand, diminishes in the aged, in chronic bronchial catarrhs, in pneumonia, typhus, and during convalescence; and in all these the nun's murmur does not exist.

The peculiarity of the murmur occurring in the veins below the diaphragm (inferior cava, external iliac, and femoral)—always the singing sound, and continuous—is explained by the above-mentioned modified relations of the abdomen. But this murmur can occur only when, other circumstances also favoring, the abdominal walls and their contents possess, at least, the ordinary degree of contractile force. This force acts indirectly to distend the inferior cava; and the blood rushing into it, through its tributaries, with increased velocity, also imparts its rapidity of motion to the continuous blood-current in the femoral; and thus perceptible vibrations in the last, and the murmur in all three of these veins may be produced.

[Certain important practical applications of this idea of the control exerted over the venous circulation by the elasticity of the lungs, and the

contractile force of the abdomen and its organs, are suggested by this article, to which we propose to call attention in a subsequent No. of this journal.

E. R. P.]

On the action of Alcohol on the Animal Organism. By Dr. A. DUCHEK.

The object of the experimenter's investigations was chiefly to decide, if possible, the following questions:

1. Does alcohol enter the circulation unaltered, or only after a change in its atomic composition? Does it undergo recomposition in the blood—and how does it leave the organism?

2. What effects are produced on the organism, and especially upon the blood during the presence of alcohol, and its products of recomposition?

3. Are these effects to be explained simply by the chemical processes induced by the alcohol; or does the alcohol induce these processes by its effects upon the nervous system.

The experiments to decide the first question were performed on dogs, by introducing alcohol into the stomach, and by injecting fusel oil into the rectum. The following phenomena were observed in animals thus treated:

1. Intoxication more or less intense, and death sooner or later according to the quantity of alcohol and the rapidity of administration; these phenomena occurring in the same manner, whether the alcohol was injected into the stomach or rectum. 2. The blood appeared perhaps somewhat darker colored, but still had an alkaline re-action; and exhibited a strong smell of Aldehyde, which was also diffused through all the organs of the body. 3. In two cases, Aldehyde was proved to exist in the blood, by chemical tests. 4. No other products of oxidation of alcohol were detected. 5. Alcohol could never be shown to exist in the blood; and 6, the stomach, even a short time after the introduction of alcohol into it, contained only small quantities of this substance. 7. The urine, as well as the fluid of the cerebral ventricles, exhibited a peculiar but evanescent smell of ether. 8. No material anatomical alteration existed in any organ. 9. According to the last experiment, the effect of Amylalcohol appears to be much more considerable than that of Ethylalcohol.

With reference to the first question, he conceives the following conclusions as fairly deducible from his experiments:—

1. Alcohol taken up from the stomach or intestine, penetrates the walls of the same in minute division at many points, and

2. Having entered the vessels is instantaneously changed into Aldehyde.

3. The Aldehyde is conveyed to the rest of the body with the blood.

The experimenter adds that intoxication is not produced by the action of alcohol upon the mucous membrane of the stomach; that this first takes place with the formation of Aldehyde; and that the latter represents the intoxicating principle of Alcohol.

Our author then institutes a set of experiments, to determine whether Aldehyde, introduced directly into the stomach or blood, will produce intoxication; and concludes:—

1. Aldehyde, introduced into the venous blood or stomach, produces the same violent symptoms of intoxication as if alcohol were used.

2. The sudden introduction of a large quantity of Aldehyde into a blood vessel produces mechanical coagulation of the blood.

3. Upon the cessation of the narcosis, the acetic and oxalic acids are found in the blood: from this the Aldehyde appears to be prepared for excretion by the addition of oxygen.

4. If at any one moment a large quantity of Aldehyde is present in the blood, a portion of it may be thrown off unchanged, with the pulmonary exhalations, and its odor thus perceived. This occurs, however, only when very much Aldehyde has been suddenly injected.

In reference to other points of the inquiry, the following are the more important deductions:—

1. After the use of alcohol more air is inhaled, indicating an increased necessity for oxygen.

2. In the expired air is found less carbonic acid; and less water in the pulmonary exhalation.

3. The number of respirations and the arterial pulsation, as well as the animal heat, are augmented, consequently also the process of oxidation in the body is increased.

Finally, in cases of sudden death by alcohol there is no anatomical alteration of the organs, least of all, of the brain and its membranes; only a spurious œdema was found in the lungs. In the cases of intoxication continued for a longer period, there was some emaciation; but no alteration in the brain, not even the thickening of the membranes and effusion in the ventricles mentioned by Huss. In two instances there was blennorrhœa of the external auditory passages. The stomach and its membranes, contrary to the statements of others, were always normal. Only in one instance, where a small quantity of brandy was administered daily, was an abundance of fat found. This case is the only one which can be properly used for inferences concerning the chemical effect of alcohol, since, in the others, the abnormally large quantity of alcohol administered induced widely different results, although not easily explicable (as rapid consumption of the body, &c.), which do not appear to belong to the category of well-determined chemical processes.

Our experimenter thinks he has shown conclusively;—1. That alcohol in the organism is subservient to an increased combustion, the intermediate products of which are found in the blood. 2. That intoxication is dependent upon the existence of Aldehyde in the blood at the time. 3. That the effect of this substance upon the blood is that of the rapid consumption of oxygen; and finally, 4, that hereby the combustion of other substances is interrupted, or rather diminished.—*Vierteljahrschrift für die praktische Heilkunde.*

MATERIA MEDICA, PHARMACY, AND THERAPEUTICS.

On a new Caustic in Malignant Ulceration of the Skin.—M. E. Cazenave, of Paris, relates in "L'Union Medicale" two cases of malignant ulceration of the face, in which he has successfully employed a local application made from sulphuric acid and powdered saffron. The remedy is formed by pouring the acid on the saffron, and applying it in the form of a soft paste. Its corrosive action is immediately manifested on the diseased

tissues; the paste dries, and falls off in two or three days, in the form of black crusts, which carry with them the eschar. The application is made several times; the wound assumes a healthy red tint, and cicatrization takes place. In one case a year has elapsed, in the other, two years, and the disease has not returned.

The efficacy of this treatment is evidently dependent on the sulphuric acid, which we believe would succeed equally as well if made into a paste with common flour, or any ligneous powder, as with saffron. A paste of sulphuric acid and flour would be worth trying in obstinate cases of phagedenic ulceration.—*Association Med. Journal.*

[We consider this preparation far preferable to the Arsenical Paste sometimes applied to malignant ulcers of the face—as by its use we avoid the unpleasant consequences which may follow the application of the latter.—E. H. D.]

Balm for Chapped Nipples and Broken Chilblains. By M. Cazenave. Take of olive oil, ten ounces, Venice turpentine, two ounces; yellow wax, one ounce; alkanet root, half an ounce; boil together, strain, and add balsam of Peru two and a half drachms; camphor nine and a quarter grains; stir constantly until cold.

Balm for Chilblains.—Take of rectified spirit of turpentine one drachm; sulphuric acid, fifteen grains; olive oil, two and a half drachms; mix. To be rubbed night and morning on unbroken chilblains.

Goulard's Balm.—(Oil of Saturn.) Take of essential oil of turpentine, any quantity; heat it *secundem artem*; decant, &c. Used for dressing phagedenic ulcers, ecthyma, some chronic eczemas, and rupia.

Plenck's Mercurial Balm.—Take of mercury one ounce; lard, three ounces; calomel, seventeen grains and three quarters; elemi ointment, three ounces; mix. Used for dressing venereal ulcers.—*Dublin Quarterly Journal.*

Collodion and Castor Oil in Erysipelas.—M. Guernsant has employed with advantage, in a severe case of erysipelas, an application to the skin consisting of collodion combined with castor oil. The formula was—collodion, 30 parts; castor oil, 2 parts; mix. This varnish was applied once on each three successive days to the parts attacked, and with good effect, as it caused cessation of the burning pain, and the disappearance of the redness. The idea of mixing collodion with castor oil is due to M. Robert Latour.—*Journal de Med., in Med. Times and Gazette.*

Ferruginous Collodion.—Having observed the utility of the salts of iron in erysipelas, M. Aran, to facilitate their application, combined them with collodion, forming a preparation which united the compressive and astringent effects. It consists of equal parts of collodion and Bestuchef's tincture (etherial tincture of perchloride of iron). Spread on the skin it forms a somewhat thinner pellicle than ordinary collodion, but it is much more supple and resisting, so that the limb can be moved in any direction without the cracking which takes place when collodion alone is used. Its adhesion is also more prolonged.—*Brit. and For. Med. Chir. Rev. from Bull. de Therapeutique.*

Neuralgia.—Cazenave recommends, in facial neuralgia an ointment com-

posed of chloroform, 20 parts, prussiate of potash, 10 parts, and lard, 60 parts; a piece the size of a walnut to be rubbed over the painful part. An oiled silk cap is then to be worn some hours.—*Brit. and For. Chirurgical Review.*

Extract of Capsicum.—At the request of a physician, Mr. W. C. Bapes, of Philadelphia, has been induced to prepare the above extract. Although the Pharmacopœia recognises the Infusum Capsici, and also the Tinctura Capsici, yet it is not always convenient to administer a medicine in the form of a liquid; therefore an extract was thought of as being perhaps the most convenient to the medical profession. After some experiments, Mr. B. has found the following formula the most satisfactory:

Take of	Powdered Capsicum . . .	8 ounces.
"	Dilute Alchol, ...	1½ pint.

Moisten the capsicum with a sufficient quantity of the dilute alchohol, and set the mixture aside in a close vessel to macerate for six days; then place it in a percolator and pour dilute alcohol on it until four pints have been obtained; and evaporate by means of a water bath, to the consistence of an extract. Eight ounces of the powder have been found to yield two ounces of extract. It is very powerful; and when a small quantity is placed on the tongue, it produces an insupportable burning sensation immediately; and, if left too long, will act as an epispastic. It has been used with success combined with quinine, in cases of intermittent fever, occasioned by the too frequent use of ardent spirits. An ointment made in the following manner,

Take of	Extract of Capsicum	1 drachm.
"	Simple Cerate	1 ounce.

was found to act as a rubefacient in less than twenty minutes. It may be used with success where a simple rubefacient is required.—*American Journal of Pharmacy.*

Syrup of Lactucarium.—The importance of Lactucarium as an article of the Materia Medica has long been acknowledged by many of the most authoritative writers upon medicine, being regarded by them as particularly suitable to the case of those whose idiosyncrasy forbids the employment of opium, or any of the opiate products.

From the experiments of M. Emile Mouchon—detailed in the 18th vol. of the American Journal of Pharmacy, page 32—which, from the care bestowed upon the subject, seems to be entitled to great respect, ethereal and alcoholic menstrua appear to be inappropriate to the extraction of the active principles of the drug, and even were either of these solvents suitable to the exhaustion of the material, our own experience would forbid us adopting them in a satisfactory method of making a preparation which should contain, in a moderate bulk, an adequate dose of the remedy, and yet be free from alcoholic stimulus, so undesirable in anodyne preparations.

The formula for a syrup, given by M. Mouchon, while it affords a preparation which represents the medicine very completely, leaves it so weak as to be quite objectionable.

A formula which seems to answer the conditions above mentioned, is

offered in the hope that a remedy so deservedly esteemed may be more generally employed:—

Take of English Lactucarium in coarse powder,	grs. 64
Carbonate of Potash, . . .	grs. 32
Distilled Water sufficient,	
Sugar, ...	oz. 4

Grind the Lactucarium with carbonate of potash, and continue the trituration till the two are thoroughly mixed; add sufficient water to moisten it completely; allow it to stand for twelve hours, and displace slowly till two fluid ounces are obtained; then add the sugar, and dissolve with a gentle heat.

Each fluid drachm of this syrup contains two grains of Lactucarium. J. S. Wiegand in *Am. Jour. of Pharmacy.*

Tannate of Quinia and Tannate of Cinchonia.—These vegetable alkaloids are at present attracting attention in France. They are described as being less unpleasantly bitter, and as equal or superior in therapeutic power to the common preparation of quinia and cinchonia. M. Barreswil communicated last year to the Academy of Medicine in Paris, the processes by which he obtained these tannates; and Buchner, a German pharmacologist, describes an extremely simple method of manufacturing tannate of quinia, which is given as follows in the *Annals of Pharmacy* for June, 1853.—(Am. Jour Med. Sciences.)

"Cinchona bark roughly powdered is to be treated with six times its weight of common or household vinegar. After it has macerated during twenty-four hours it is boiled, then decanted, and the residue is treated afresh with more vinegar. These several decoctions are to be mixed together and filtered when perfectly cold; and to them is added an infusion of gall nuts so long as a precipitate is formed. This precipitate is to be collected on a filter, to be then washed, and lastly to be carefully dried."

Although the tannate of quinia prepared in this manner is not absolately pure, and therefore requires to be given in larger doses than the sulphate of quinia; yet Buchner considered this preparation as to be particularly recommended, both on account of its cheapness, in comparison with the more expensive drug, sulphate of quinia, and also from the simplicity of its manufacture, on account of the facility with which it may be prepared in almost all pharmaceutical establishments.

A New Kind of Alcohol.—It is said that a new kind of alcohol has been discovered by M. Wurtz, a professor at the Ecole de Medecine at Paris, by repeated distillations of the oil obtained from potatoes. Its composition is represented to be C8, H10, O2. He terms it alcoöl entylique.—(Provincial Med. and Surgical Journal, Sept. 29, 1852, p. 518.)

Ozone.—This remarkable substance, which is sometimes, but not universally, present in the atmosphere, and which has been hitherto regarded, when observed, to be an allotropic condition of oxygen, has been discovered by a German chemist at Bonn, not to be so, but a distinct substance, existing as a teroxide of hydrogen, thus continuing the series of the compounds of oxygen with hydrogen. The details of the process by means of which the discovery was effected have not yet been given.—(Med. Times Gazette, Oct. 15, 1853.)

Obstetrics and Diseases of Women and Children.

The conductor having the charge of this department will aim to make Midwifery and Diseases of Women and Children an attractive feature of the Monthly. A portion of each number will be devoted to these subjects. In this country, all engaged in the practice of medicine and surgery are called upon to practice midwifery. American midwifery is cosmopolitan. It is not based exclusively either on the British or the Continental schools, but it is characterized by a judicious eclecticism which combines the excellences of both. If we have founded no new school of obstetric doctrine and practice, we at least have contributed, within the last half century, our full share to the various improvements in the practice of this branch of the profession. It is only necessary to refer to the introduction of ergot as an oxytocic by the late Dr. Stearns of this city; to the standard "System of Midwifery," by Dr. Dewees, and his improvements in the treatment of hæmorrhage and convulsion; in the means of facilitating difficult labor; his papers on inversion of the uterus; and thrombus of the vulva; to the unequalled monograph of Dr. Trask on "Rupture of the Uterus;" to the successful operations of Dr. Sims, of this city, for the cure of Vesico-Vaginal Fistula; and to the valuable didactic treatises by American authors on diseases of children, as furnishing ample illustration of the truth of the claim.

In this department of the Journal will be found,

1st. An abstract of all articles in the American Journals, relating to this department, which seem to embody new facts or establish new principles of treatment.

2d. Selections from the English, Scotch, and Irish Medical Journals, and abstracts of translations from the French, German, and Italian. B. F. B.

Chloroform in Midwifery.—At the present time, there is probably no subject of greater importance in obstetrical practice than the exact determination of the value of this powerful agent. The capital fact is established beyond all controversy, that sensibility to pain may be annulled while uterine contractions continue. But many still doubt as to its safety. It is a significant fact that the most prominent objectors are those who have never used it, and the arguments which they bring against its use, if carefully examined, will be found to be based upon facts misunderstood, false reasoning, or prejudice. While, on the other hand, all who understand the nature and properties of this agent, who are familiar with its effect, and who have had a large experience in its use, concur as to its entire safety when given with judgment. Not a single authentic case has been reported where death has resulted from the use of chloroform in midwifery. For obvious reasons, the danger is much less in obstetrics than in surgery. In the former case, it is administered to relieve pain already existing. In the latter it is given to annul the sensibility to anticipated pain. Still the indications and contra-indications for its use are to be clearly and precisely defined. The rules for its administration are to be formularized.

We believe that we shall render a good service to our readers by placing before them an abstract of a most excellent paper on this subject, read before the New-York State Medical Society, by George N. Burwell, M.D., one of the Physicians of the Buffalo Hospital. It is unusually free from crude speculations and theoretical reasonings. It is a pure summary of the facts which the author himself has observed, detailed without effort or pretension, but with a naïveté, sometimes amusing, but always forcing the conviction of the perfect truthfulness of the writer.

It has seemed to us that the literature of this subject has been characterized by a greater brilliancy of genius, a more careful and discriminating observation of facts, and sounder logical reasoning than that of any other one medical subject. The papers of Prof. Simpson, the immortal discoverer of the anæsthetic properties of chloroform and the first to use any anæsthetic agent, in obstetric practice, are remarkable in these respects. To quote from the Medical Times and Gazette, "most of us acknowledge the energy and perseverance with which Dr. Simpson strove to overcome all the opposition which timidity or prejudice raised against the adoption of his discovery, still more admire the manner in which he proved that the amount of present good derived from anæsthetic agents was not counterbalanced by any equivalent amount of future evil; but that on the contrary, the continuous good effects were proved by diminished mortality after operations when chloroform had been used. Then his admirable refutation of the miscalled religious arguments against the use of anæsthetic agents in midwifery, at once removed what was at one time one of the greatest barriers to its general use in assuaging the pains of labor, and forms a claim of gratitude only second to that of proving its utility and safety in allaying the intolerable, inexpressible suffering of the hour of childbirth, so completely, that the question now is, why should any woman undergo unnecessary and injurious suffering, which may be avoided, not only without danger, but with evident advantage?"

The papers on this subject by Nunnely, Dr. Snow and Dr. Murphy, Prof. of Midwifery in the University College of London, are each remarkable; but it is not to our present purpose to allude to their peculiar excellences. We have certainly met with no paper on the subject during the past year, by either foreign or American writers, of equal merit with that of Dr. Burwell.

The following are the data on which his remarks are based.

Total number of cases in which chloroform was given for a greater or less length of time, ...	180
Number of cases where the relief obtained from the chloroform was decided, ...	122
" " where the relief was moderate, . . .	55
" " where there was no relief, ...	3
Longest time in which it has been continuously administered to the patient, ...	14¾ hours
Average duration of administration to each patient, about, .	1 "
Number of cases which have been terminated by the forceps,	17
" " of craniotomy, ...	1
" " turning, ...	1
" " first labor, ...	88

Number of cases of still-born children (in 13 labors),	.	14
" " flooding, ...		7
" " inflammation, recovered, . .		5
" " " died, . . .		1
" " bad health, succeeding the confinement,		25

An examination of the details which Dr. B. furnishes, will satisfactorily establish the fact that neither the death of the child nor the cases of inflammation, nor flooding, nor of bad health succeeding the confinement, can, with the slightest degree of probability be ascribed to the use of chloroform.

We shall quote freely from Dr. Burwell's descriptions of the effects of chloroform upon the symptoms and progress of labor, and append some comments of our own:—

"*First, of its effects upon the mental faculties.*—In a large proportion of the cases, chloroform was not given so freely as more than momentarily to obliterate them. The patients may be said to have remained sensible during the whole time of its administration. In some this sensibility was acute and lively, while in others, although they afterwards asserted that they knew everything which occurred, even to the birth of the child, they lay in such a quiet, drowsy condition, that frequently at the time I thought them insensible. I use the term insensibility here in reference to the condition of the mind and senses, and not in reference to the existence of pain. When in the first condition, they always declared their relief; called for more chloroform as the pain was coming on; frequently said when they had enough to benumb the pain; and even occasionally held the sponge themselves to breath of; and thus continued until the birth of the children. In the second condition, they laid in the intervals of pain more as if asleep, always waked out of it, of course, by the recurrence of pain. When the pain had passed off, I have often heard such declarations as "How delightful!" "How easy I am!" "What a relief!" &c. If I was careful to repeat the inhalation before every pain, it was not often asked for; but if I neglected it, it would very soon be inquired for.

"A condition of mind often connected and alternating with the state just described is delirium. This has indicated a degree of anæsthesia, sufficient, while it continued, to cause insensibility to pain, and to take away all recollection of the labor. It varied much in different cases, amounting in some cases only to a little muttering, where I could only occasionally catch a well articulated word; in others there would be a distinct pronunciation of words and sentences. The subject was almost always foreign to anything which would naturally have suggested itself, and it was almost always one of an unpleasant nature—something which excited grief, and occasionally tears. One fancied that her husband was in confinement; another, that her child would be killed; one was disposed to be hysterical and to weep; another was greatly grieved that a friend she wished to see was not present, nor would assurances, that the person she was calling for was with her, seem to satisfy her. One who was taken with pain prematurely, from fright the day before, got while riding, was fancying continually that the horses were just about to run, and spoke of their acting badly, kicking, putting their ears back, &c. These ideas would keep in her mind continually, when under the influence of the chloroform. Three or four times

the subject has been pleasant. One patient only, a very amiable woman, as far as I know, was made exceedingly cross and petulant by it; so much so, that on this account alone I discontinued it, but resumed it at her solicitation, after she had become again sensible to pain. I have never in any case, seen any delirium sufficiently violent to require a suspension of the remedy; never any raving or violent hysterical symptoms; never any symptoms of coma or stertor.

"An anomaly connected with the condition of the mental faculties, difficult to understand, and of great importance as it seems to me, is the entire loss of all recollection of the labor, almost from the first inhalation of chloroform, and yet during labor perfect sensibility as to the condition of the mental faculties and senses, and perfect sensibility not only to the existence of pain, but also to the relief derived from the chloroform itself."

There is a happy point in the use of chloroform in midwifery, not attainable in many subjects, but which we always aim to secure if possible, viz., insensibility to pain while mental consciousness is retained. The patient hears, sees, and speaks; and she is conscious that the process of labor is going on, but she has no perception of the pain which usually attends this process. Dr. Burwell details four cases illustrative of this condition, and of the fact, which we have frequently, we perhaps might say generally, observed, that after the effects of the chloroform have passed off, the patient is oblivious of what occurred while under its influence. Dr. B. appends the following useful caution—

"These cases seem to me to be very important, from the difficulty and uncertainty in judging correctly of the actual condition of the patient, and, of course, of the propriety of giving more chloroform. If accidents are to occur in the use of chloroform in midwifery, it will be, most likely, in such cases as these, from urging the remedy, under a false impression of the actual condition of the patient as to sensibility and intelligence.

"*Second.—Of the effect of chloroform upon the cries of pain.*—The prevailing idea is, and naturally enough, too, that if chloroform relieves pain, the cries of pain ought also to cease. But, as will be inferred from what has already been said, this is by no means the case, and we should be following a very dangerous guide did we depend upon them to determine whether or not the patient was sensible of her pain. Their existence is certainly an indication of suffering on the part of the system; but the cases given show that the mind does not necessarily take cognizance of them, nor will there necessarily remain any recollection of them afterwards. They, then, are not good guides; for were we to depend upon them alone, and, because they existed, suppose our patient needed more chloroform, we would at once be in danger of giving an overdose, and possibly a dangerous one.

"Nevertheless, chloroform does, in almost all cases, greatly subdue and lessen these cries or expressions of pain; and when this effect is being produced, we may be confident of our patient's relief, even if there be no other signs by which to judge of it.

"In a few instances, when administered freely, I have seen it quiet every expression and manifestation of pain.

"No prediction can safely be made in any particular case as to the precise effect the chloroform will have upon the cries of pain.

"*Third.—Of the effect of chloroform upon the muscular system.*—We see in labor two kinds of muscular action; first, that connected directly with the birth of the child, consisting of contractions of the uterine and accessory muscles, or those concerned in what is called a regular bearing down pain; second, a restlessness whenever a pain is on, seen in some cases, and which often defies all control. The patient cannot or will not lie still, but turns from side to side; throws her arms about; draws up or extends her limbs, and seems to have no power of obeying us when we give the triple order to lie still, keep in the breath, and bear down. Neither of these varieties of muscular effort do I ever try, as such, to control with chloroform: I want the full effect of the first kind of muscular action, and am afraid to give chloroform enough to quiet the second. I am anxious to have my patients exert themselves in any real expulsive effort; and I am gratified to find that chloroform, given in moderate doses, will afford in such a large majority of cases so much, and often such entire relief from pain, and at the same time scarcely interfere with the regular muscular contractions. The efforts will be the same, and their repetition as frequent as without its use.

"Given in large doses, I have in a few cases seen all use of the voluntary muscles prevented, and the children born by the contractions of the uterus alone. It has been very interesting to notice, in such cases, with what force the children have been thrown into the world. It really lessens one's ideas (in some cases at least) of the value of the accessory muscles.

"In some of the cases, there has been no doubt of the fact, that the moderate use of chloroform has had the effect of lengthening the intervals between the pains, and rendering them less expulsive. One case I have seen where this was so markedly the case as to lead to its discontinuance. I think I could have put off the labor the whole day by it. The patient was with twins, and had not slept of any consequence for nine days, on account of great pain from extreme distension of the abdomen, and inability to lie down. The result was, that the moment she got any relief, she fell into a snoring, apoplectic kind of sleep. This has been the only case I have seen of any decided or continued retardation of labor from the use of chloroform."

Complete anæsthesia will undoubtedly cause a total suspension of voluntary muscular contraction. In some cases, even uterine contractions are partially or wholly suspended, but these cases are exceptional. In passing, we will remark that it is very doubtful as to the amount of efficient aid rendered by the voluntary muscles. Every obstetrician must have observed how very frequently the voluntary efforts of the patient defeat the end by inducing a premature exhaustion, an inertia, before these efforts could be rendered at all effective. Chloroform most certainly produces a suspension of voluntary action, rendered by the "accessory muscles." But in how large a proportion of cases the labor is retarded thereby, is doubtful. M. Caseaux has, more clearly than any other writer, explained the phenomena which seem to have puzzled Dr. Burwell, as well as many others, as regards the facility and rapidity with which the fœtus is expelled while the action of the muscles, under the control of the will, is suspended. The "accessory muscles" of parturition are identical with those of respiration, viz., those of the chest, the diaphragm, and the abdomen. While, then, respiration con-

tinues, these muscles contribute, more or less, effectively to facilitate the expulsion of the contents of the uterus. But the question, whether the use of chloroform delays or accelerates labor, is sometimes one of capital moment relative to the life of the mother or child. In some the labor is retarded. The annihilation of the voluntary efforts will delay the labor in some cases, although not in all. Hence we have established for ourself the rule not to use chloroform, in face or breech presentations, where it is probable that the labor will terminate spontaneously, because the danger to the child in these presentations is proportionate to the length of the labor. While we admit, as undoubtedly true, that the direct effect of chloroform upon the child is entirely nugatory, we think that its life may be jeopardized in certain cases, from its influence in protracting the labor.

We were surprised to see that in 180 cases of midwifery, in which chloroform was used, Dr. Burwell did not meet with a single case in which its use promoted the dilatation of the os uteri and perineum, and increased the secretions from the vagina. The experience of M. Caseaux confirms this observation, and M. Villeneuve, of Marseilles, reports a case in which very extensive laceration of the perineum occurred while the patient was under the influence of chloroform. But most who have had any considerable experience in its use have come to a different result. In our own practice we have several times seen the soft parts very rapidly relax after the inhalation of chloroform, where the rigidity of these parts had previously constituted the great obstacle to the immediate termination of the labor. In more than one case we have seen it completed without assistance where the chloroform was used as a preparation for forceps delivery. In a patient of Dr. J. D. Green's, which we saw, the cervix had fully dilated, the waters had been discharged, and the head had descended to the floor of the perineum. But no farther progress was made, owing to the rigidity of the perineum. The pains were urgent and very frequent, and the patient, after continuing over five hours in this state, had become extremely impatient and irritable. The vagina was hot and dry, and so extremely tender to the touch that a sufficient vaginal examination was obtained with difficulty. Symptoms of nervous exhaustion were now exhibited to such a degree that it was decided to deliver by forceps, after she had been brought under the influence of chloroform. But as soon as the anæsthetic effect was obtained, the character of the pains changed, the heat and dryness of the vagina disappeared, the perineum at once relaxed, and the head was delivered within five minutes. We have several times observed similar results.

After describing the effects which he has observed of chloroform upon the pulse and respiration, Dr. Burwell says:

"I would here remark that I have not unfrequently noticed this irregularity and slowness of the respiration as an effect of chloroform, and it has almost always been coincident with the production of total anæsthesia. On perceiving it, I have always at once discontinued its further inhalation. While having thus frequently noticed this effect upon the respiration, I have, as already stated, never known (with the one exception) a marked rise or fall, or other alteration of the normal character of the pulse during its administration. And, furthermore, in every case of these irregularities of respiration, I have noticed the pulse to be perfectly natural in force, fulness, and regularity of beat.

"From the consideration of these facts, I look upon the breathing as a

better guide in the use of the remedy than the pulse; and I am governed much more by it. An examination of the reports of fatal cases, as seen in the medical journals, will show that when the pulse has been noticed to fail, the patient has generally died. Any approach, then, to this effect, should by all means be avoided; and I think my observations have been numerous enough to establish the fact of an alteration in the frequency, or regularity, or rhythm of the breathing, as almost uniformly to precede an alteration or failing of the pulse. I can easily imagine how, under the influence of an overpowering dose, the respiration and pulse may give out almost simultaneously, so that no precedence can be given to one over the other; but my remarks here are all predicated upon its cautious use in the small doses I have ever been accustomed to administer it."

With Dr. Burwell, we have been accustomed to regard the breathing as a better guide in the use of chloroform than the pulse. In a paper, also published in the "Monthly Journal" for September, 1853, by Mr. Bickersteth, of Liverpool, on the mode of death from the inhalation of chloroform, he states, as his opinion, from experiments he has performed on animals, and from the observation of cases in which chloroform nearly proved fatal, when inhaled for the purpose of producing anæsthesia, that death begins at the lungs and that the cessation of the heart's action is secondary. But this was not the fact in, at least, three fatal cases. In a recent interview with Dr. Park, of New Haven, we learned that in a fatal case which occurred in his practice, where the chloroform was inhaled to prevent pain from the extraction of the fangs of a tooth, the pulse suddenly flagged, and then almost instantly stopped. The heart ceased to beat, but breathing continued for several minutes. In the London Lancet, a case is reported where death followed the inhalation of chloroform in a patient of Mr. Quain on whom he was about to operate for strangulated femoral hernia. Respiration continued after the pulse had ceased to beat. This was also the fact in the fatal case occurring to Dr. Dunsmere, Surgeon to the Royal Infirmary, of Edinburgh. The truth is, both the pulse and respiration should be closely watched during the inhalation of chloroform. In midwifery practice it is rarely necessary to induce perfect sopor, and hence it may be given with less hesitation than in a surgical operation.

As regards its safety in midwifery, we append some remarks of Professor Murphy.

"We have endeavored to show you very briefly, that the safety of the mother and her offspring are not compromised by the judicious inhalation of chloroform. For a more full discussion of these objections, I can only refer you to the tract already alluded to, as I must now draw to a conclusion; but I cannot do so without expressing my deep regret, that the use of chloroform in midwifery is still surrounded by such a halo of prejudice that even eminent authorities cannot look at it through any other medium. How else can we explain the absurdity of describing the sopor of chloroform as intoxication, of speaking of 'the intoxicating properties of chloroform,' of informing women that they might probably be made 'dead drunk,' or must certainly be reduced to that condition which the law designates 'drunk and incapable?' Such objections as these are quite unworthy of the objectors; not only because they are untrue and give an erroneous representation of the physiological phenomena that take place, but because they betray great want of knowledge of the properties of the agent that is

objected to. They are, in fact, rather appeals to prejudice than reason, and may be placed in the same category with other and more disgusting assertions, which have been made with regard to the ramblings of parturient women in the transition stage.

"Alcohol and chloroform are both hydrocarbons, so is hydrocyanic acid; they all affect the same tissues, and in a similar manner, but differ *toto cœlo* in the degree and rapidity of the effect; each have a transition stage—the stage of intoxication; with hydrocyanic acid it does not last a second; with chloroform, only a few minutes; with alcohol, it remains for hours. The sopor of chloroform may be caused without any excitement; the sleep of drunkenness never can.

"But to place this difference before you in a clearer light, I shall place the properties of these two hydrocarbons, chloroform and alcohol, side by side.

Chloroform.	*Alcohol.*
1. Slightly soluble in serum.	1. Soluble to any extent.
2. Very slightly stimulating.	2. Highly stimulating.
3. A most powerful sedative even in small doses.	3. No sedative effect until taken in large quantities.
4. The effects rapidly disappear.	4. Its effects continue for hours..
5. Most powerful when inhaled.	5. Least powerful when inhaled.
6. Comparatively slight effect when administered by the stomach.	6. Effects most powerful when taken into the stomach.
7. No alteration in the appearance of the brain, in cases where it has caused death rapidly.	7. Apoplectic congestion of the brain where it has been fatal.

"From this parallel you perceive that the agency of chloroform and alcohol on the constitution are altogether different; that chloroform does not intoxicate in the sense that the term is used in this objection, but that the exciting stage is very short, merely transient to the sopor that succeeds. The sleep of chloroform is totally different from the sleep of drunkenness—the one passes away with the vapor and leaves the patient as perfectly herself as she was before; the other continues so long as the blood is charged with alcohol; and even when consciousness returns, the effects of alcohol require a long time before they disappear.

"Having thus explained the properties of chloroform, its effects on the constitution, its advantages and disadvantages; having also considered the objections offered to its use, I shall conclude by briefly enumerating the points we have considered:—

"1. Chloroform does not paralyze the uterus, although from its influence on the excitomotor nerves, when the full dose is given, its action may be for a time suspended.

"2. Chloroform has no effect on the life of the child.

"3. Chloroform, when judiciously given, has no effect on the life of the mother.

"(a.) When given by the mouth, so as to influence the sentient nerves, it could not cause death, because it is not sufficiently powerful to act upon either the respiratory or the ganglionic nerves.

"(b.) When given in the full dose to produce sopor, it will not cause death, unless the quantity given is so concentrated as either to paralyze the

heart's action, or the pneumo-gastric and other respiratory nerves. A fatal result must be the consequence of a want either of attention or knowledge.

"4. Chloroform does not leave any morbid after-effects, in the great majority of cases where it is given; but it must be remembered that chloroform, like other powerful medicines, may act injuriously on certain constitutions, and hence the importance of a careful inquiry into such cases.

"5. Chloroform produces the most beneficial after-effects in cases where there had been intense suffering during labor, because it obviates the nervous irritation, the constitutional shock that is the result of long-continued and very severe pain.

"6. We may add, that its too-powerful effect may be obviated by fanning the patient, dashing the face with cold water, applying the vapor of ammonia to the nostrils. These remedies, however, are intended to stimulate the excitor nerves, they cannot therefore have any effect if these nerves lose their power. In such cases, artificial respiration has been found by Dr. Snow to be useful, not by pumping air into the lungs, but rather by pumping the vapor out of them, and allowing atmospheric air to enter by exciting inspirations."

It would give us pleasure to copy Dr. Burwell's rules for the use of chloroform in midwifery, with the dose and mode of administration; but our limits will only permit us to give the indications for its use as laid down by M. Charles Bernard:

"Chloroform is especially indicated,

"1. In very nervous women, in order to calm the excessive agitation and intellectual disturbance which parturition often causes in them.

"2. In those in whom labor appears to be suspended or notably retarded by pain caused by antecedent disease or by certain accidents, such as vomiting, cramp, violent colics, compression of the sciatic nerve, &c.

"3. To abate irregular and partial contractions, which, notwithstanding the atrocious and almost constant pain which they excite, do not at all advance labor.

"4. In the spasmodic retraction and rigidity of the neck of the uterus.

"5. In eclampsia."

SURGERY AND SURGICAL PATHOLOGY.

Amputation of the Tongue. Speech preserved. By M. Maisonneuve. The amputation of a considerable portion of the tongue, in cases of cancerous affections of that organ, which had for a long time been almost entirely pretermitted, has, in our day, been again introduced into practice, either by means of excision, or by means of the ligature. In the case here reported by M. Maisonneuve, one of the most distinguished surgeons of the French capital, and which we translate from the *Gazette des Hôpitaux*, the preference was very properly given to a method of excision. The cancer, which was of an epithelial nature, occupied the anterior half of the organ. The surgeon divided the soft and osseous parts of the chin, and was thus enabled to operate with ease upon the tongue, a considerable portion of which, as well as of the sublingual gland, was removed. The case presents two remarkable peculiarities: the cause of the affection, in the first place, and in the second place, the complete recovery of speech; the latter, probably to be accounted for by the superficial nature of the affection, which

had spared the deep parts, and gives reason to hope that the patient will escape the dangers of a relapse. Here are the facts, as related by Dr. Maisonneuve:

"Dr. J., corresponding member of the Academy of Medicine, and President of the Committee of Vaccination, had been for several years in the habit of sending to the departments liquid vaccine-matter, preserved in small tubes. The matter was put up by himself, and, as a consequence, he had been in the habit of holding a certain number of glass tubes in his mouth. The sharp points of the glass induced punctures on the tongue, frequently followed by small pimples. The pimples would generally disappear in a few days; but, in time, an induration supervened, and became, by its persistence, the origin of a grave disease. In fact, tormented by the persistence of the induration, Mr. J. endeavored to remove it by cauterization. He first employed nitrate of silver; then, acid nitrate of mercury; but this medication aggravated the disease, instead of arresting its progress. Epidermic tubercles were developed all over the surface of the tongue, and subsequently a profound ulceration invaded the central part of the organ. By the advice of friends, he submitted to the energetic cautery of red hot iron; an operation which had the effect of giving still greater activity to the disease. All the anterior part of the tongue, nearly as far as the calciform papillæ, became the seat of a considerable ulceration, of one inch in length; while at the same time, the central ulcer was making rapid progress. To these symptoms were soon added lancinating pains, which entirely deprived the patient of rest. He consulted Dr. Ricord, who submitted him to the iodide of potassium. Despite this treatment, the disease gained daily; the tongue, enormously tumefied, ended by obstructing the buccal cavity; the efflux of saliva was continuous; speech became impossible, and the patient was compelled to restrict himself to liquid aliments. It was in these conditions, that, by the advice of Dr. Ricord, the patient came and consulted me. In the presence of a disease of such gravity, against which the most rational medication had been found powerless, I believed myself justified in proposing amputation as the only resource. It was performed on the twenty-fourth of August, at Dr. Pinel's *Maison de Sante*, in the presence of Drs. Larrey, Ricord, Richard, Dumolet, Lauglebert and Pinel. The patient having been submitted to chloroform, I first incised, on the median line, the lower lip and the soft parts of the chin. Next, with a chain saw, I made the section of the lower jaw; the two branches of which being thus separated, I was enabled to grasp the tongue, and draw it out. By a rapid dissection, the diseased organ was then separated from the healthy parts, as far as beyond its anterior half and over an extent of one inch. The sublingual gland had also to be sacrificed. Ligatures were applied upon the important vessels, so as effectually to prevent hæmorrhage. After this operation, the branches of the jaw were brought together, and maintained in contact, by means of thread rolled round the incisor and canine teeth; the ligatures placed upon the vessels were directed under the chin, in the inferior angle of the chin; and the edges of the division were united by means of the twisted suture. Notwithstanding the extreme gravity of this operation, no accident was manifested. The union of the external parts was effected by first intention; the enormous loss of substance was rapidly repaired; the bones became consolidated; and, what is truly remarkable, forty days after the operation, the patient had recovered his speech, and at the same time,

the faculty of seizing and masticating his food. Anatomical examinations demonstrate that the affection belonged to the class of epithelial cancroids. It may therefore be hoped that there will be no relapse."

"*Extraordinary operation on the Subclavian Vein, by the Mate of a Vessel; Recovery.*—The following narrative is given to show the value of self-control and common sense in scenes of danger, and the resources of nature under the most desperate circumstances. The merest chance in the world elicited the simple and child-like narrative from the operator; and he seemed as much astonished as ourself, when the almost certain character of his performance was pointed out to him on a preparation of the heart and blood-vessels. Edward T. Hinckley, of Wareham, Mass., then mate of the barque Andrews, commanded by James L. Nye, of Sandwich, Mass., sailed, some two years and a half since (we find the date omitted in our minutes), from New-Bedford, Mass., on a whaling voyage. When off the Gallipagos Islands, one of the hands, who had shown a mutinous disposition, attacked Captain Nye with some violence, in consequence of a reproof given him for disobedience. In the scuffle which ensued, a wound was inflicted with a knife, commencing at the angle of the jaw, and dividing the skin and superficial tissues of the left side of the neck, down to the middle of the clavicle, under which the point of the knife went. It was done in broad day, in presence of the greater part of the crew; and Mr. Hinckley, the mate, being so near that he was at that moment rushing to the captain's assistance. Instantly seizing the villain, and handing him over to the crew, the knife either fell or was drawn by some one present, and a frightful gush of *dark* blood welled up from the wound, as the captain fell upon the deck. Mr. Hinckley immediately thrust his fingers into the wound, and endeavored to catch the bleeding vessel: with the thumb against the clavicle as a point of action, and gripping, as he expressed it to me, "all between," he found the bleeding nearly cease. The whole affair was so sudden that, Mr. Hinckley stated to me, he was completely at a loss what step to take. Such had been the violence of the hæmorrhage, a space on the deck fully as large as a barrel head being covered with blood in a few seconds, that it was evident, from that and the consequent faintness, that the captain would instantly die should he remove his fingers from the bleeding vessel. As Mr. H. said to me, with the simplicity and straightforward style of a seaman, 'I brought to for a minute, to think over the matter. The bleeding coming upwards from under the collar-bone, and being completely concealed by it, it was plain enough that I could'nt get at the blood-vessel, without sawing the bone in two; and this I would not like to have tried, even if I had dared to remove my fingers. Feeling that my fingers' ends were so deep as to be below the bone, and yet the bleeding having stopped, I passed them a little further downwards, still keeping up the pressure against the bone with the middle joints. I then found my fingers passed under something running in the same course with the bone; this I slowly endeavored to draw up out of the wound, so as to see if it was not the blood-vessel. Finding it give a little, I slowly pulled it up with one finger: *when I was pulling it up, the captain groaned terribly;* but I went on, because I knew I could do nothing else. As soon as I could see it, I washed away the blood, and was astonished and very glad to see there were two vessels, as I supposed them to be, one behind the other:

the cut was in the front one. It was the full breadth of the knife, or about half an inch, and neither across nor lengthways, but about between the two, and went about half its thickness through the blood-vessel: *it was smooth and blue* in appearance; and the cut had stopped bleeding, as I supposed at the time, because the vessel was pressed together by being stretched across my finger. As I had often sewed up cuts in the flesh, and knew nothing about tying blood-vessels, and supposed that was only done when they were cut in two, as in amputated limbs, I concluded to try my hand at sewing it up; so I took five little stitches: they were very near together, for the wound was certainly not half an inch wide, if so much. I twisted the ends together loosely, so as to make one large one, and let it hang out of the wound over the bone; then I closed all up with stitches and plasters. On the fourteenth day I found the strings loose in the wound, from which matter had freely come: it healed up like any other cut.'

"The practical anatomist and surgeon will at once see the internal evidence of the entire truthfulness of this extraordinary narrative, and the certainty that Mr. Hinckley must have closed up a wound in the subclavian vein. Aside from the position of the wound rendering any other explanation impossible, and the color and amount of blood instantly lost, the fact that a wound of the subclavian artery must have been followed by aneurism, if not instant death, renders the conviction unavoidable that it must have been the vein. Indeed, it is impossible to suppose, aside from Mr. Hinckley's high character and the corroboration of the log-book, that such a story could have been devised by any but a surgeon of decided practical ability. We may be mistaken in our views of its importance, but we think that in the estimation of our professional readers we have placed upon record one of the most extraordinary circumstances in the whole history of surgery."—(Scalpel.)

PRACTICAL MEDICINE AND MEDICAL PATHOLOGY.

Certain signs indicating the commencement of pulmonary phthisis; by M. BOURDON.

Every one knows how difficult it is to determine the presence of pulmonary tubercles, in the commencement of the disease, and how uncertain are stethoscopic signs. They may not be present, when the lung contains a large number of tubercles; they may exist when it does not; they may be masked by various sounds. General symptoms furnish no sure means of revealing the diagnosis; a simple catarrh may be attended by very severe symptoms, whilst a true phthisis may produce but a slight effect upon the system.

On the other hand, it is in the commencement of the malady, when the diagnosis is most difficult, that it is most important that it be understood, because at this time the opportunity exists of acting with the most success. M. Bourdon has sought to throw light on this obscure point of science. Impressed for a long time, with the frequency of certain symptoms in patients affected by phthisis, he studied them with care in order to establish their true value as signs. These symptoms are arranged under several heads,

according to the organs in which they are manifested. 1. Gastric symptoms. 2. Hepatic symptoms. 3. Thoracic pains.

1. Gastric symptoms must not be confounded with the morbid phenomena which are observed in nearly all diseases. Those which are coïncident with the commencement of phthisis, are nausea, vomitings, epigastric pains, and dyspepsia. We must not expect to meet them in all patients; nevertheless they are extremely frequent, since M. Bourdon has found them in more than two thirds of the subjects; some phthisical patients have experienced but one; in others, on the contrary, they are variously combined. Nausea and vomiting are the most frequent; they are generally manifested after coughing. But it must be said, however, that their frequency and intensity, are by no means proportionate to the severity of the cough; they occur in fasting as well as after eating. In general, the vomitings are composed of mucous secretions; they are rarely bilious. On the other hand, if they manifest themselves in a large number of tuberculous patients, they do not appear with any regularity except in a very small number of cases.

Another very common symptom is epigastric pain. In the greatest number of cases it is accompanied by vomitings and nausea; however, it may also appear without these. With a majority of patients it is manifested only on pressure; or it is so slight that it is necessary to call their attention to it, in order to make them sensible of its presence; with a few it is developed spontaneously. Although it shows itself as well before as after eating, it is, however, after the ingestion of food that it is the most commonly observed. Dyspepsia quite persistent, without nausea or vomiting, has been observed in a certain number of cases. Frequently, these gastric symptoms precede thoracic; but more frequently, perhaps, they are manifested either at the same time as the latter, or may occur afterwards. Are they due to a lesion of the stomach? This is a question whose solution has occupied the attention of the author. Frequently he has found the stomach healthy, more frequently it has presented some lesion, the most frequent being a peculiar mammillated condition of the mucous membrane. He is inclined to think that the pressure exerted by the enlarged bronchial ganglia upon the pneumogastric apparatus, may contribute to these affections of the stomach.

2. The liver has also presented remarkable peculiarities. In half of the cases examined by M. Bourdon, there was increase of size, accompanied often with pain. This increased volume, appears above all to have manifested itself in the right lobe; the consistency of the organ does not undergo any change. Lesion of sensibility is less frequent than changes in volume. Spontaneous pains are rare; in nearly all cases, they appear only on pressure or after some harsh or prolonged movements.

In a very small number of cases only, do we find this increase of sensibility without change of size.

As to the change which the liver may undergo, autopsies have shown that in more than half the cases examined, it consists in a fatty degeneration, more or less advanced; in a majority of cases the bile is more dense and more highly colored.

3. Most phthisical patients experience pain between the shoulders, and upon the sides of the chest: besides these spontaneous pains, there are others to which M. Bourdon calls the attention of physicians, and which are revealed only upon percussion. The points where this pain may be developed are quite numerous; it is generally observed, however, under the clavicle.

This pain exists only on the side affected by tubercles; if both lungs are invaded, it attacks the side which is most affected. This has been observed in all periods of the disease. As to the cause of this pain, M. Bourdon is inclined to refer it, like M. Beau, to an intercostal neuritis.

The legitimate conclusions which M. Bourdon derives from his researches are the following. When a prolonged dyspepsia is observed, accompanied by nausea and vomitings for which no cause can be assigned, or even an abnormal development of the liver without disease of the heart, or inflammation of the liver; when these phenomena are perceived to manifest themselves independently of any other affection, or in the course of chlorosis, or after measles, or typhus fever,—the physician should suspect tuberculous affection, should examine the patient with care, and even when he has doubts of its existence should act as if he was convinced of its presence, or at least use every necessary precaution.—(Archives Générales de Médecine, April, 1853.)

PART IV.—HOSPITAL RECORDS.

The Medical Institutions of the United States.—It is our intention to give, from time to time, a succinct historical account of the several Hospitals, Dispensaries, and Schools of Medicine in the Union, embracing all those statistical details with which it is desirable and expedient that the profession at large should be familiarly acquainted. In the execution of this design, we shall require some assistance; and we now solicit, from all who may possess it, such information as will enable us to render these articles as complete and satisfactory as possible. It is not intended to observe any strict order as respects either priority of establishment or locality, but simply to make use of the data as they come to hand, and are considered sufficiently comprehensive.

All communications and printed documents bearing on this subject, from this and other cities, addressed to the Editor, at the office of this Journal, No. 7 Park Place, will be thankfully acknowledged and freely used for the purpose in view.

From the documents and information already in our possession, we have prepared for the press, and shall publish in our next issue, the first article of this proposed series, being an account of the New York City Hospital, the oldest and most known of the institutions of this city.

We have caused to be printed and distributed to the several City Hospitals and Dispensaries, and the State Institutions in the neighborhood, blank forms, of a tabular character, to be filled up from their daily proceedings, showing the number and nature of the cases treated in them, with special reference to age, sex, place of nativity, occupation, temperament, diathesis,

disease and its complications, with the result of treatment and marked pathological conditions. From these we anticipate to be able to prepare quarterly, abstract statements of a most important statistical character connected with endemic, epidemic, and sporadic disease, and surgical lesions, as well as the evidence of climatic influence, one column being appropriated to the length of residence of foreigners in this country.

Such a record, if faithfully kept and carefully prepared, will form a basis of calculation and argument of great value to the medical philosopher in considering the etiology of general or special disease. To the resident physicians and surgeons of the several hospitals, and the ordinary attendants of those establishments which do not receive interns, we look for aid in this useful and interesting work, being well assured that the profession will appreciate the trouble they must necessarily take to provide the desired information. Nor will their efforts in so good a cause be without advantage to themselves personally. The credit due to the compilers of these tables will be manifest in their publication, and establish a reputation for careful and scientific investigation, calculated to create confidence in their professional acquirements and experience; and the habit of methodical notation thus acquired, will enable them to enter the arena of more extended professional engagements with an advantage none but those so trained possess, but the want of which many have to deplore. It is matter of daily experience to all that a great amount of valuable knowledge is lost to the practitioner and student, from the neglect to render permanent, by written record, the knowledge of the phenomena which present themselves in the observation of disease, under the various and mutable circumstances of climate, constitution, and local or casual agencies.

From the courtesy with which our proposal has been met, and the assurances of compliance we have received, we confidently expect to make these tables an attractive portion of our publication, and good evidence of the industry and talent of our rising men.

The atmospheric condition, as exhibited by meteorological observations during the past seven weeks, was somewhat more variable than during the same period of time in 1852, although the total number of clear and mild days has been larger. The types of disease prevailing have been of the usual character observed at this season, although perhaps somewhat more asthenic. Several fatal cases of cholera have been recently reported, and this has naturally enough given rise to apprehension, in the public mind, that it will become epidemic. On this subject, we append the following pertinent remarks of the "Daily Times":—

"During the year 1851, and until May of 1852, there was not a case of cholera reported, though no one doubts that men occasionally died here,

during that time, with symptoms which would have passed for true cholera in a cholera season. Physicians, knowing very well what an inflammable material the public is made of, and how hawk-eyed are their brethren in detecting an error of diagnosis, are not accustomed to call a fatal disease cholera while cholera is not prevalent, however willing some among them might be to hide their own blundering treatment, during its prevalence, under its formidable name. Now, the fact that physicians return it as a cause for death, without a note of explanation, or any hesitation whatever, discovers, first, that nothing but a different condition of the atmosphere is necessary to develope cholera as an epidemic here, and, second, that it has so familiarized itself by its presence, that we may safely expect no precautionary measures will be adopted for our protection.

"Critical, indeed, is our present condition. Whatever may be the cause of cholera, we see it steadily marching toward us. We find none to doubt that by next summer our coast will intercept its career. Meanwhile, the city is in most excellent condition to welcome the foe of our race. The steam of our piles of street dirt attract it as the smoke of tall chimneys is said to draw lightning, or the stench of a carcase the vulture. Our best streets are miserable dirty, our worst are incomparably foul. No one is ignorant of it, none doubt the attraction of dirt for every such disease. Yet the city lies quiet, like an open keg of powder with the lighted torch only a foot above it. Down the sides of the torch the ashes fall, and sprinkle the powder as with hoar frost. A coal falls, but it strikes by the edge, which has been dampened. The public servants look up from their soup and their wine, and think "something ought to be done;" but as the explosion has not come yet, they begin to doubt if powder will burn when fire touches it, and so eat and drink, and pocket the people's money, and do nothing to save us.

"We should do something towards turning away the torch. We should institute instant measures of protection against the pest-houses that almost daily reach Quarantine; clean the ships, give more room for emigrants, give them wholesome food and facilities for cooking, and to officers power to enforce those regulations which experience and humanity dictate. The press, enlightened public sentiment, and patriotic ship-owners can do very much towards this; our State Legislature and Congress can do much more. But nothing, probably, can prevent the coming of the plague. We should, then, do all possible to guard ourselves. In the city, garbage and dirt of all sorts should be removed at once, while the weather, unseasonably pleasant as it is, favors the removal. Inspectors should be instructed to report every nuisance at once, overcrowded tenements should be thinned out, and the surplus tenants cared for by the public until they can properly care for themselves. The markets should be put in order, suspicious meats be sub-

ject to close inspection, and every violator of the laws regarding the public weal in this respect punished with exemplary severity."

It becomes clearly the duty of every practitioner to exercise the influence he possesses in his immediate circle of social and professional connection, to advocate and enforce all such prophylactic measures as are calculated to arrest the progress or mitigate the violence of the disease should it appear among us. Much may be effected by judicious management of the household on sound hygienic principles, and no rational being will object to be guided in this respect by the advice of his physician.

In the New York City Hospital there has been a considerable amount of interesting disease, but, at the same time, a paucity of cases requiring special comment. Dr. Agnew reports a case presenting some peculiar features and connections. A patient was admitted with a bleeding ulcer at the flexure of the left arm. Venesection had been performed seven months previous to her admission, for some affection under which she was at that time laboring. The puncture had at first healed, and remained closed for about a month, when it ulcerated and bled. On admission, the lips of the ulcer were found callous and pouting, and surrounded by a thickened condition of the integumental and cellular tissues. The patient was chlorotic and suffering from amenorrhea. She had menstruated but once since the infliction of the wound. The fore-arm was flexed on the arm at an angle of 45°. The hæmorrhage from the ulcer had occurred at irregular intervals, was generally venous in its character, but occasionally assumed an arterial hue and impulse. Many efforts had been made to arrest the hæmorrhage by compresses, escharotics, and other styptics; but no attention would seem to have been given to the derangement of the uterine functions. On consultation, it was determined to cut down and explore the condition of the diseased parts. The median basilic was found healthy and continuous; it was cut and tied at both ends. The wound was left open, and measures taken to promote granulation from the bottom. The iodide of iron was administered internally. One week after the operation, the patient menstruated. The arm was kept in proper position by splints. One or two slight bleedings occurred from the wound during the progress of cure. The patient menstruated a second time at the natural period, and was discharged cured on the sixtieth day. Two months afterwards she was reädmitted, the cicatrix having again ulcerated, but there had been no recurrence of hæmorrhage. The arm was again flexed, and the wound looked as unhealthly as formerly. The arm was straightened, and splints adjusted; the ulcer treated with cold dressing. Thirty-five days after admission, she was seized with an acute attack of ovaritis, which after a few days yielded to treatment. The wound has recently bled two or three times, and she has not menstruated since her admission. In thirty days she was again

discharged, with the ulcer healed and the functions restored. The interesting points connected with this case, are the apparent connection existing between the hæmorrhage from the ulcer and the absence of menstruation; and the obstinacy of the diseased action in the part involved in this vicarious flux. It is no less remarkable, that another patient from the same part of the country, and under the care of the same medical man, was admitted during the same period, with a similar ill-conditioned ulcer resulting from the puncture of venesection; but in this latter case there was no reason to suppose the hæmorrhage from the ulcer to be vicarious, as the uterine functions were normal.

At Ward's Island we have been much interested with the success which has attended the employment of cod-liver oil in the marasmus of immigrant infants, induced by the want of proper nourishment, and unhealthy atmosphere during the Atlantic voyage, this condition being exhibited as well among the children born in the vessels as in those who were carried on board healthy at the port of embarkation. The oil is given to the youngest, in quantities as large as the stomach will bear, in combination with brandy and milk. Many little ones have been thus rescued from apparently impending dissolution. Pneumonia has been very prevalent among the infants, but has yielded kindly to treatment. The autopsy of fatal cases has shewn the disease to be more frequently lobar than lobular. Intermittent fever has also obtained to a great extent among very young infants, seventeen cases being reported during the last month, one of which, only, proved fatal. Dr. H. G. Cox, who has the medical charge of this department, has confirmed the remarkable tolerance with which very young infants bear the administration of quinine, no less than *sixteen grains* being given in the twenty-four hours for several days, to patients of six weeks and two months old, with the happiest results. We saw an interesting case of paralysis from dentition, in a stout and otherwise healthy child: she was quite hemiplegic for some time, but is now recovering, under stimulant frictions to the spine, and encouragement to use the affected extremities. Puerperal fever has frequently visited the obstetric wards, and compelled the physician to change the locality of his patients. On each occasion the removal was attended by a cessation of the disease. The wards are now, however, free from this appalling malady. The treatment pursued has been the old-established one of a combination of calomel and opium, with local blood-letting, with a very satisfactory amount of success, without resorting to the heroic doses of opium which we have read and heard of as being administered.

In the surgical department of this noble institution we have been struck with the great variety of lesions, and the large number of cases under treatment. It is one of the most extensive fields of surgical study on this continent. Purulent ophthalmia among children has presented a formidable array of cases.

The general strumous character of the patients, contracting the disease under the depreciating influence of long sea-voyages in crowded ships, with indifferent and insufficient nourishment and clothing, aggravates the disease to a frightful degree; and the majority of the cases exhibit more or less structural disorganization. The result of constitutional treatment, with judicious dietetic management, has been attended with the most favorable issue, the local treatment being of the simplest palliative description. There is a well-marked case of distichiasis in the ophthalmic ward—the double row of lashes being very distinct and complete, the under row inclining very strongly inwards and keeping up a severe degree of irritation. The mode of treatment pursued by Professor Carnochan in morbus coxarius, has been very successful. He relies principally on constitutional treatment, abandons the use of splints and confinement, permitting and encouraging the use and motion of the affected side, and allowing the abscess to open spontaneously. The number of cases now in progress of convalescence, the general improvement in the physical appearance of the patients, and the absence of the distressing hectic, indicate the soundness of the principle upon which he proceeds.

There was a well-marked case of extensive dissecting abscess of the cellular tissue of the lower extremity. The muscles of the lower third of the thigh, the leg, the ankle, and dorsum of the foot, entirely denuded of integument and separated from one another, exhibited a truly frightful appearance, and precluded the hope of a favorable termination. The patient was sent in from the medical wards, where he had been the subject of fever; and the progress of the disease has been most rapid. There is also an interesting case of spontaneous gangrene of both lower extremities, in a man of middle age. We have been unable to trace the history of the case, or to account for the cause.

The number of victims of Pott's disease, of all ages, is by no means the least interesting feature of practice to be seen here. With these also, the principal direction is given to constitutional treatment; rest and counter-irritation of a mild character being the adjuvant means employed. There is also, in the convalescent ward, a case in which resection of the carpal ends of the radius and ulna, and the first row of carpal bones, has been accomplished, with much benefit to the patient, and with very complete conservation of the power of grasp and traction, and of effective motion of the wrist. Three good stumps, after amputation at various points in the thigh, by double flap, seem to attract the attention of the visiting student, and deservedly so. In one case, union took place completely by first intention.

From the Orthopedic Institution, under the direction of Drs. Bauer and Barthelmess, we have been supplied with a statistical return of cases treated by them, since the opening of their Institution in August last. An analysis of these tables will be given in the next number, our pages being so completely preöccupied as to prevent a more extended notice at present.

PART V.—EDITORIAL.

SALUTATORY.

THE conductors of the AMERICAN MEDICAL MONTHLY, in presenting another periodical to the profession, believe they are called upon to express their opinion of the character and standing of the profession of this country, their own aims in engaging in this new enterprise, and the means available for their accomplishment.

The Medical Profession, in every age and country, must receive a strong impress from the times and the people. Composed, as it is, of men who are constantly mingling with the public, and who necessarily become conversant with the intimate life of all classes, it acquires and displays a strong resemblance to the national and social peculiarities of those classes and that public. Its philosophy must accord with that which prevails in other departments at the same period. Much of the contempt which has been so lavishly bestowed upon medicine during the dark ages, so called, belongs not to that science, but to the condition of its contemporaneous philosophy. The natural sciences were then in their infancy, if, indeed, they were at all known; and, hence, no adequate basis for the advancement of medicine yet existed; still, all the sources of progress and advancement were confined to, and the only evidence of energy was displayed by, medical men. It is true, Aristotle had bound them down to his own peculiar tenets; although it may be saying little enough to assert that medical men were certainly as free as other classes of educated people, from the chains by which that master-mind kept the intellect of the age in bondage. But the period of emancipation arrived, and among the earliest and most prominent to claim the largest liberty were those versed in the medical lore of the times.

A more recent example will also illustrate this point. During that curious delusion concerning witchcraft, which in the latter part of the 17th century overran not only a portion of our republic, with such sad effects, but also England and Scotland, it is pleasant to reflect that a physician raised his voice, and boldly used his pen against the errors into which clergymen and magistrates, as well as the people, were so blindly falling. What, if he may have been imbued to some extent with the vagaries of the day! He was prompt to follow any glimmering of light, and feared not to publish and maintain his convictions.

So it is also with national peculiarities: they will mark the physician as indelibly as other classes, their effects being modified only by the difference of pursuit; for in the quiet walks of science we are not to expect the same developments as in the busy excitement of political and social commotions.

In our estimate of national characteristics of the medical profession, we shall not wander far from the truth if we designate the French as earnest, indefatigable, brilliant, and acute; the English as stable, slow to change, studious, and withal dogmatical; the Scotch as quick, practical, and diligent; the Irish, as inventive, active, and thorough; the Germans, as patient, persevering, accurate, and minute. And thus we might continue to characterize the profession of every nation by features which would sufficiently distinguish each from the rest. But it is the medical profession of our own country with which we now have to do.

Composed as our nation is of the descendants of almost all the European peoples, and constantly receiving accessions, not only of middling, but of eminent professional talent, it would seem, at first glance, as if our profession must present an incongruous combination, held together by no principle, and bound by no common tie. Still, there is a very close resemblance, in all respects, throughout all parts of our land. The Medical Journals which are now issued in every part of the Union, except the new States which border on the Pacific ocean, bear full and constant proof of this similarity. Untrammelled in all other respects, mind learns to throw off a forced adherence to dogmatic teachings, and to follow its own convictions of the truth.

It is not uncommon to hear words of disparagement uttered against our medical literature. These have been pronounced ex cathedrâ by our national association, and have carried with them all the weight of the highly intelligent committees of that learned body. But has not an error been committed by assuming as perfect a certain standard (perhaps that of the English periodicals) and attributing every difference to inferiority; while forgetting the variations which become necessary from our different circumstances? It cannot be expected, that the practitioner engaged in the active discharge of his duties in the newer portions of this new country, however great his opportunities of observation may be, and how perfect soever his appreciation of his advantages in this respect, should write with the same polish and adornment, that would grace the articles of him who can command leisure, and embrace all the facilities afforded by a vicinage to Guy's or l'Hotel Dieu. Yet, all things considered, the difference is not very remarkable. An acquaintance of some years with this kind of literature, has led to the conviction that our national profession has good reason to be proud of its contributions to medical knowledge. These may not exhibit the exhausting learning of the Germans, which leaves nothing unreferred to, or be garnished with the brilliant and profuse experimentation of the French; but there is a certain directness, a going to the point at once without circumlocution, which is far more acceptable to one whose time is precious, whose mind is probably preöccupied with the anxieties of practice, and who is compelled to obtain with rapidity the information he requires.

The day has passed when American books were disregarded. The productions of our writers are now frequently transferred to foreign journals; American opinions and American authors are quoted, and made the subject of fair, and oftentimes flattering criticisms.

We have dwelt thus on our medical literature, because we have felt that justice required us to do so, and because it is one means of expression of the character of the American medical profession. We shall recur to it in a subsequent portion of this article, in connection with another topic.

We have said that, notwithstanding the various origin of the individuals composing the medical community of this country, and the different circumstances in which they are placed as to climate and customs, a great resemblance is still observable among them. We hope to escape the charge of national vanity or individual egotism, if we attempt to portray justly and faithfully, what appear to us to be the leading features of their character.

The first striking point which presents itself for remark is a spirit of restless activity—we do not use the words in a bad sense—a quickness of inception and application. This is in a great measure common to the national character, and results, no doubt, from the multiplied means of rapid communication, the extent and variety of the resources upon which our energy is brought to bear, and the necessity of keeping pace with the knowledge, which, local it may be in its origin, speedily traverses the whole field of observing laborers, and incites investigation, as a means of preparation for its use. To illustrate this, we may refer to the epidemics of yellow and typhoid fever. An acquaintance with the first, not only theoretical but practical, is a matter of course with the physicians of the North, in view of its occasional visitation of the higher latitudes; whilst the latter had been diligently and fully studied by those of the South, long before it made its appearance among them. The wide range of different climates; the prolific cause of disease developed in the clearing up and settlement of new localities; the well-known influence of accumulated masses of people, and the changes brought about by the successive alterations which occur in their social condition, are phenomena of almost daily contemplation to us, and call for attention the more earnest and rapid, in proportion to the celerity with which they are made manifest. In this manner, the fruit of long periods of time and change, which call forth the reasoning and engage the learned research of the medical philosophers of older countries during their tardy maturation, must here be garnered with diligence and promptness, since it ripens so quickly.

The second peculiarity is a promptness of action and facility in putting into practice what is learned, which also arises, in part at least, from the habits of thought engendered by our political condition. If conviction of the truth of a proposition, is present to the mind of an upright and inde-

pendent man, he will immediately follow and act up to its teachings, without waiting for the words of another to authorize his course. When with entire liberty the mind is permitted to run over the whole range and theory of government, and, the rights of others being duly respected, no hindrance is offered to the practice of what is believed to be correct, it is natural and inevitable that the same course will be pursued in other subjects.

These appear to us to be the principal features of our national medical character. It was hardly to be expected that hitherto our system of medical instruction should be as perfectly organized and conducted as in European schools. But we may now justly claim for ourselves, even in this respect, a favorable comparison with them. To all their natural advantages many of our teachers have superadded a course of foreign instruction and travel. Our presses pour forth freely, at a price compatible with the means of almost all of our practitioners, the lore of other nations; while the accumulated experience of our own observers is also not wanting in importance. Our surgeons have performed some operations which claim to be unique both in kind and result. Our physicians have taught the possibility of successfully combating diseases heretofore regarded as incurable; and their published works are quoted with respect. That, on the other hand, we have defects as a profession, and those of a grave nature too, we freely acknowledge. To assert the contrary would be to say what has never been true of any body of men. To expose those defects is always painful, though sometimes necessary; to repair them is the especial province of the professional periodicals; and it is believed that the MONTHLY will be found to be an important assistant in this work.

It is time, and it is essential, that we should now assert and maintain a standard of excellence among ourselves. We shall be unjust to ourselves if we longer remain content with a second place; we shall be unwise if we make no effort to stand higher. Our numbers on this continent are now amply sufficient: there is no deficiency of talent; and the means of giving expression to our judgments are daily multiplying. The commendation of the American profession ought to be commendation enough, without the necessity of appealing to a jury of foreign critics; and its disapproval, while it should be slow and just, ought to be final. If we are wanting in public corporations to give weight and expression to this judgment, which, did they exist, would be only too fallible, it must be obtained at the bar of public professional opinion, uttered through its ordinary channels. Let us mature this opinion, by individually seeking to obtain more knowledge from the fields of observation and study so abundantly provided. We owe this to ourselves; we owe it to the country which has given us birth, or which has so generously received us to its bosom.

We now approach a point where it becomes necessary to speak of mat-

ters somewhat more personal, namely, our own enterprise. We say *somewhat* more personal, because we do not regard this publication as entirely the result of individual desire. It springs from a necessity very generally recognized and acknowledged. It is intended to obviate a reproach hitherto justly applied to this city, fast becoming the great centre of medical instruction and knowledge, as it already is of mercantile pursuits, commercial influence, and social wealth. While assuming this important and responsible position for this journal, we, however, cheerfully acknowledge the merit of those who have heretofore labored in this cause. But it seemed to those who have taken an active part in originating this periodical and in encouraging the effort for its commencement, that a larger and more comprehensive publication was necessary to fulfil the requirements of the profession at the present time. Several of our sister cities have for some years proved the practicability of successfully competing with the reprints of foreign journals, by sustaining the issue of publications which combine the features of original contributions, retrospective records of American medical science, and analytical synopses of foreign literature."

In the city of New York there are about one thousand practitioners of medicine. She has three medical schools, annually educating from six to seven hundred students; she possesses some of the largest and most admirably conducted hospital establishments in the Union; and is daily obtaining the supremacy in the field of general literature. Under the combination of such favorable conditions, it has been matter of surprise to the visitor, and a cause of regret to all who know how to estimate her wonderful and onward progress in all the elements calculated to bestow upon her the position of a metropolitan city, that so prominent a characteristic of scientific intelligence and zeal as such a journal should be wanting.

It may be regarded as a bold attempt on the part of the conductors of this periodical, to endeavor to fill this hiatus. They are fully sensible of the responsibility they have undertaken; nor are they unmindful of the severe criticism to which they thus voluntarily expose themselves. Due consideration has been bestowed upon these, as well as the ordinary difficulties to be overcome in undertakings of this kind. Conscious of their deficiencies, they have endeavored to nerve themselves for the encounter, to prepare themselves for the onerous duties they have assumed, and to make such arrangements as will enable them to overcome the obstacles they can foresee, or those which may present themselves from sources not now apparent.

The principal causes of the failure of numerous efforts which have been made hitherto in this direction, seem to have been the following, 1. A want of sufficient capital to commence upon a scale commensurate with the objects in view, and to sustain the cost of publication during the languid circulation of the earlier years of issue; 2d. The impracticability of secur-

ing a constant supply of material within the limits of one individual's professional connection and acquaintance; and the absence of all inducements to exertions on the part of competent writers, in the circumscribed extent of circulation, and the fact that the proprietor of the publication was the only party benefitted by their labors; 3dly. However well qualified the editor might be to undertake and fulfil all the functions required of him, it was impossible for one man to bestow the time necessary for the careful collaboration so essential to the complete arrangement of a monthly periodical, unless he made it the only business of his life—a circumstance not likely to occur, unless his financial success fully justified him in so doing, aside from the improbability that, however well prepared he might be on some, he would be equally familiar with all the departments of medical literature. Lastly, that when publications were commenced by individuals principally with the view of writing themselves into notoriety at the commencement of their professional career, no matter how successful and meritorious their efforts, their zeal flagged when they found an increasing practice engrossing their attention, or that the labor and time thus bestowed were either immunerative, or interfered with some other more lucrative occupation.

We shall doubtless be expected to indicate the course we contemplate adopting with reference to this periodical, in order to avoid these sources of failure; as well as our means for accomplishing our purpose, of giving to the profession a medium for the interchange of information and opinion, for promoting the interests of medical science, for elevating the character of the medical profession, and establishing a record of American practice, observation, and progress.

1. A sufficient amount of capital has been secured to meet the contingent expenses of publication of a monthly issue of three thousand copies for several years, in any event. We can thus offer to subscribers a guaranty of its permanence so far as pecuniary means can insure it.

2. With the desire to elicit the contributions of authors of merit and experience, we insure a liberal and prompt remuneration for all articles accepted for our pages; limited probably at first in accordance with our means, but to be increased in proportion to our success. We therefore invite all who wish to embrace the opportunity thus afforded, of bringing before the bar of public judgment the fruits of their observation and study, freely to transmit their manuscripts, with the confident assurance that they will obtain candid investigation and ready acceptance when found worthy of publication. In the exercise of the criticism which shall determine this point, every care will be taken to weigh well the intrinsic merit of the subject, as well as the literary excellence of the composition. Some indulgence will be required in the performance of this responsible and delicate duty; but we rely upon the good sense of unsuccessful competitors to sus-

tain the editor in its performance, when they shall perceive that the importance or novelty of the articles selected justify his preference. We do not limit this invitation to particular places, or departments of medical science. In our enterprize we "know no East, no West, no North, no South." We seek to render the journal subservient to the interests and elevation of the profession throughout America, and therefore look for support in this endeavor from the United States and contiguous countries, and wish to include among the objects of investigation all the collateral branches of science which have a direct bearing upon the progress of the healing art. We therefore solicit a liberal exchange with our contemporaries in this and other parts of the world; believing that while we shall freely receive we shall as freely give interesting and profitable information. Careful attention will be bestowed upon the review of all recent publications which are brought under our notice, and this will be rendered a prominent characteristic of our enterprize. By a judicious subdivision of the labor of collaboration, we anticipate being also able to give a complete resumé of foreign as well as American medical progress. In furtherance of this part of our design, we have secured the services of gentlemen fully competent to select and translate the productions of the German, French, and other foreign medical periodicals; and each of the conductors will be responsible for his own department in this respect.

In all matters pertaining to the welfare of our public institutions, and the advancement of professional excellence and knowledge, we shall encourage free-discussion; recognizing, however, no sect, no party, but the duly educated and regularly qualified practitioner of medicine, and the zealous promoter of scientific truth. We believe that we have reason for congratulation that for the superintendence of the hospital department we have secured the services of a gentle man who is a writer of ability, a surgeon of knowledge and experience, a practiced lecturer, and a veteran journalist; thus bringing to our aid qualities especially adapted to appreciate the excellence of a clinical lecture, the skilfulness of an operator, or the wisdom of a mode of treatment. We therefore feel justified in announcing that this portion of the journal will be of unusual value—certainly this can only be prevented by obstacles which we cannot believe we have any reason to anticipate.

Such are our aims, and such are our means of accomplishing them—we stand above all party or sectional considerations; we shall labor for the good of our whole profession, and oppose whatever obstructs its advancement—both honestly and fearlessly, and so far as in us lies—and we therefore appeal to the profession for support.